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ABSTRACT

GRADES OR AGES: K-6. SUBJECT MATTER: Entire elementary curriculum, including language art, mathematics, the arts, social studies, science, physical education and health, foreign languages, home and family, and industrial arts. ORGANIZATION AND PHYSICAL APPEARANCE: The central part of the guide is divided into nine sections, one for each of the above mentioned curriculum areas. The guide is offset printed and staple-bound with a paper cover. OBJECTIVES AND ACTIVITIES: An introductory section outlines a philosophy of life and education and presents a detailed list of traditional American values. Curriculum sections in the central part of the guide suggest objectives--primarily skills--and outline a sequence of concepts around which a program may be developed. Some general suggestions for activities are listed. INSTRUCTIONAL MATERIALS: Guidelines for the use of the school library and the use of television in the classroom are included. STUDENT ASSESSMENT: No mention. (RT)

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Guide TO ELEMENTARY EDUCATION IN OREGON

Basis for Curriculum and Instruction

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Foreword

Confronting educators today is the sobering realization that adults of the twenty-first century are already in elementary school classrooms and that these children are to live most of their lives in a world which does not yet exist! Never before in the history of man has the rate of change been so rapid or the impact of change so far reaching. Sociological, technological, economic, political, scientific, and cultural changes are forcing new patterns of living and thinking on the world. The impact of automation on our way of life, important as it will be, is less significant than its effects on individuals—their values, goals, self-images, commitments, and levels of involvement in society.

What is education's role in this world in which the explosion of knowledge threatens to overwhelm us, contemporary society is changing rapidly, and there are so many significant discoveries about learning and people? It becomes apparent that the elementary school child needs an educational program to deal effectively with the pressures which are already upon him as well as others which will emerge from the milieu.

Though automation, the displacement of man by machine, the threat to the individual, and the uncertainty of the future pose difficult decisions for educators, there are, at the same time, some directives for curriculum planners. These directives arise from the persistent and recurring concerns which have long influenced educational decisions. The uncertainties of life and the pressures from a changing society call for people who can think creatively and critically, who have competence in the skills which facilitate learning, and who have workable self-concepts to help them make adjustments and become contributing members of society.

The curriculum proposed in this Guide stresses:

- Development of personal values and desirable attitudes
- Competency in skill-development as a tool for learning to conceptualize
- Ability to think at the creative and critical level
- Personal commitment to the American way of life
- Involvement of the child in his society
- Skill in using the inquiry process
- Opportunities to become a fully-functioning, thinking, creative individual
- Opportunities to develop appreciations
- Ability to develop and use human relation skills

This publication has been written to assist Oregon elementary school educators to meet the challenges of the remaining sixties and seventies.

Leon P. Minear

Superintendent of Public Instruction

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PART I

Curricular Foundations

Overview

Use of Guide

PURPOSE OF GUIDE

The purposes of this publication are to indicate direction, to serve as a general guide, and to provide the philosophical bases for the instructional program. These bases are derived from the needs of society, the needs and characteristics of children, the nature of subject matter, and the nature of the learning process.

The *Guide to Elementary Education in Oregon* sets forth the framework of the elementary instructional program for the guidance of Oregon teachers and administrators. It includes areas of learning; major objectives; scope of content; sequence of learning experiences; ways of learning; and evaluation. Further, it gives all teachers support in the use of forward-looking instructional practices.

This Guide is based on the fundamental beliefs that each child is a unique individual, that learning changes the learner's behavior, and the firm conviction that each child should be challenged to learn in relation to his potential. Quality education is a goal, but the standard of quality will not be the same for each individual.

Education's task is to help each child fulfill his potential by acquiring competency in the communication skills; intrinsic motivational patterns; self-discipline; meaningful concepts; socially acceptable values, attitudes, and habits; and the ability to get along with his peers and the adults of his world.

BELIEFS

The following beliefs are basic to materials presented in this Guide:

- Each individual is unique.
- All children can learn.
- Deep within each individual is the desire to know.
- A workable concept of self① is a prerequisite for a successful life.
- There are great variations among children's rates of learning and maturation levels.
- All children have creative ability.
- Differences should be prized.

These beliefs coupled with the values of our society, the purposes of education, knowledge of child growth and development, and understanding of the learning process have influenced the framework of this Guide. Learnings in the curriculum areas have been presented as continuing, expanding processes because children progress at different rates depending upon their abilities, experiences, perceptions, levels of maturation, and status of their physical and mental health. Graded placement of skills and concepts has generally not been made.

SKILLS

Initial instruction in most skills or the readiness for most skills will begin during the child's first year in school. Skills have an expanding quality; that is, a full understanding and deepening of them comes with maturity, richness of experiences, and opportunities offered for continued expansion.

The sequence involved in learning the aspects of any skill is shown in the following schema. (To read the schema, begin at the bottom and progress upward.)

Schema—Sequence for Skill Development②

He uses the skill in more
→
complex situations.

He uses the skill in a wider
→
range of situations.

He is discriminating in its
→
application.

He is reasonably rapid.
→

The child is reasonably
→
accurate.

As the skill develops, aspects of the sequence will tend to overlap and develop simultaneously to the degree of mastery.

Teachers are responsible for providing the kinds of experiences and climate in which readiness for the learning of a skill can flourish in individuals.

Instruction should follow a sequence based upon

readiness
teaching
meaningful practice
opportunities for maintenance
→

Unless skills are used, continually strengthened, and consistently expanded, there is little purpose in children's learning them. Skills should become the tools for learning rather than ends in themselves.

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① Excerpts from a speech by Earl C. Kelley, Wayne State University, Detroit, Michigan. Kelley describes a person who has a workable concept of self as one who thinks well of himself, thinks well of others, sees that his own welfare depends on amicable relations with others, sees self as a part of a becoming world.

② Adapted from Ralph W. Tyler, "Sequence of Reading Abilities," *Sequential Development of Reading Abilities*, No. 90, University of Chicago Press, Chicago, Illinois, December 1960, p. 7.

CONCEPTS

Individuals formulate their own concepts. A concept is the result of the integration of perceptions through experience. Teachers are responsible for guiding children in this process of concept development. The formulation of concepts begins early in the child's life. Concepts *emerge* from memories, images, and imaginative thinking and perceptions. Concepts *expand;* they become broader, deeper, and are synthesized toward a generalization as the environment provides meaningful experiences and the individual matures.

How can teachers know what concepts children have if they are internalized by the child? By listening constantly to children's words and by observing what they do, the teacher will become aware of the concepts which the children have formulated.

ATTITUDES, VALUES, HABITS

Attitudes, values, and habits are also personal and intrinsic. A good school environment, however, through the richness of its offerings and the behavior of adults influences the quality of attitudes, values, and habits children develop.

Values tend to have a more permanent quality than do attitudes. Values and attitudes reflect to a degree the social environment of the individual. Attitudes may be derived from a group of concepts. Emotional thinking plays a more vital role in the development of attitudes and values than it does in concept development. However, emotions have a dynamic power and cannot be entirely eliminated from concept development. Attitudes and values may, on the other hand, influence the formulation of a concept.

Concepts, values, and attitudes are continually changing; they are part of the process of thinking, and their development is a responsibility of the school.

INSTRUCTIONAL PATTERN

The emphasis of this Guide is on the individual—his potential to learn; his progress; his interests; and his physical, mental, emotional, and social needs and the extent of their fulfillment. This emphasis on the individual calls for a particular instructional pattern called "diagnostic teaching."

Diagnostic teaching implies that the teacher is so well acquainted with each child that he has knowledge of where each child is in the development of each skill and the progress each child is making in the development of concepts. Concepts may be thoroughly developed, partially developed, inaccurately developed, or not developed at all.

Diagnostic techniques, formal and informal, are therefore one of the first requisites for diagnostic teaching. The second is the setting of goals and procedures for learning by the child as well as the teacher. So another technique called for in this instructional pattern is pupil-teacher goal setting, planning procedures for learning, and evaluating progress toward established goals.

INSTRUCTIONAL PROGRAM

Although the curriculum areas have been separated in this Guide for the purpose of presentation, every possible opportunity must be used to help children integrate their learnings. Skills should be used, relationships between concepts explored, the influence of attitudes and values on concepts recognized, the importance of perceptions to learning understood, and physical development, as well as of intellectual, social, and emotional, considered in relation to the intellectual task.

Evaluation of the instructional program must be a continuing, ever present aspect of the educational program. Helps for evaluative procedures are found at the end of the sections devoted to curricular areas and in some of the more generalized sections. Many school programs could be revitalized if these evaluative ideas are used.

Recurring Threads

Certain recurring themes or threads will be found in every chapter and curricular area of this Guide. These threads serve as unifying themes and as bases on which to build an educational program for a democratic society. These threads might be summarized as the—

- Importance of developing the values which underlie our democratic society
- Primary belief in the democratic processes
- Uniqueness of the individual
- Great need for each child to develop a positive or workable self-concept
- Importance of developing productive thinking
- Value of inquiry techniques as a means to learning
- Importance of a balanced educational program which includes skills, concepts, attitudes, and values
- Importance of wholesome interpersonal relationships
- Need for human beings to develop creativity.

District Responsibility

Each district will develop its own instructional program around the framework of the Guide and the needs of individuals.

Because this Guide presents only the framework, each district must assume the responsibility for helping teachers implement the foundation program. It will be necessary to develop resource units to assist teachers in providing the kinds of experiences necessary for children to discover the relationships between the curriculum areas, to use the skills as tools for learning, to build concepts, and to acquire wholesome attitudes toward and appreciation of learning for its own satisfactions. The development of these materials will make it possible for each district to adapt the framework to meet the needs of the children within its community, to provide for individual differences, and to help each child realize his potential. To produce this type of material calls for leadership at the local level—not only administrative, supervisory and teaching leadership as well.

Glossary

Attitude—A feeling for or against something; a relatively constant tendency to act—"Attitudes may be intellectual or emotional, but they are usually emotional in base or tone."①

Concepts—An abstraction that ". . . applies to a class or group of objects which have certain qualities in common."② Concepts may also refer to intangible ideas; e.g., democracy.

Evaluations—An appraisal based on predetermined values, objectives, or goals and using objective or subjective evidence or both.

Generalizations—State ". . . some abstract relationship among two or more concepts. . . . Generalizations may be viewed as the final achievements, the capstones, as it were, of conceptual learning. . . . Generalizations are products of problem-solving."③

Readiness—Possessing the necessary concepts, knowledge, and skills or physical or mental maturity necessary for a new learning.

Scope—A statement of the breadth and depth of proposed learning, stated in terms of objectives but realized in content.

Sequence—Orderly succession of learning experiences.

Skills—A specialized ability necessary for successful performance in a particular curriculum area.

Values—Ideal goals that are (1) apparently universal throughout a human society and (2) common to the free world of democracy.④

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① William H. Burton, Roland B. Kimball, and Richard L. Wing, *Education for Effective Thinking*, Appleton-Century-Crofts, Inc., New York, 1960, p. 36.

② National Society for the Study of Education, *Learning and Instruction*, 49th Yearbook, Part I, University of Chicago Press, Chicago, 1950, p. 106.

③ *Ibid.*, pp. 117-118.

④ Adapted from *Social Studies in the Elementary School*, 56th Yearbook, National Society for the Study of Education, Part II, University of Chicago Press, Chicago, 1957, p. 39.

Philosophy of Education For Oregon Schools

All the major branches of learning include a body of underlying principles or general conceptions which denote their social significance. This is particularly true of the field of education. Teachers, to be effective, should hold an integrated view of these principles which will provide them a basis for the general determination, interpretation, and evaluation of educational objectives, practices, and outcomes.

This statement of philosophy, developed by the staff of the Department of Education, was officially adopted by the State Board of Education on April 7, 1959, and replaces previous statements of philosophy appearing in earlier Departmental publications. It is presented to the teachers of the state for their guidance.

Beliefs About Man

The objectives of education should stem directly from the nature of man and his needs, from the nature of the school, and from our society's basic characteristics which distinguish its culture. Man has certain inherent characteristics:

1. He is a product of both his heredity and his environment.
2. He is a biological organism and his developmental processes and actions are to a large degree determined by this heritage.
3. He responds to his environment by making choices which are influenced by values he holds.
4. He has a capacity for self-direction which enables him to exercise degrees of control over his biological nature and over his physical environment.
5. He constantly develops new ways of satisfying his physical, social, and aesthetic needs; thus his culture is ever changing.
6. He is a social creature and the group culture stimulates and directs his development.
7. He learns by and through his own experiences and the experiences of his society which are meaningful to him.
8. He has personal worth and dignity.
9. He is self-centered, but has the capacity to subordinate personal desires when these conflict with the best interests of others.
10. He is neither inherently good nor bad but individually develops moral standards from his culture.
11. He is curious and this curiosity may be a stimulus to directed learning.
12. He can discover and seek to solve his problems through the processes of reasoning.
13. He is creative and the product of this creativity contributes to the culture.
14. He seeks an explanation of his relationship to the universe.
15. He passes through interrelated stages of physical, social, intellectual, emotional, spiritual, and aesthetic development; however, each individual differs both in his potential and rate of growth.

These characteristics result in all men having certain basic needs. The satisfaction of these needs, as long as man respects the rights of others, is essential to his sense of well-being as a person and as a worthy member of society. He strives for these satisfactions in the following ways:

1. He seeks satisfaction for his physical needs, such as food, clothing, and shelter.
2. He seeks satisfaction for his social needs, such as a sense of security and acceptance by his group.
3. He seeks satisfaction for his intellectual needs, such as freedom of thinking, learning, and expression.
4. He seeks satisfaction for his emotional needs, such as mutual affection, and enjoyment from contributing to the the well-being of others.
5. He seeks satisfaction for his spiritual needs such as freedom of belief and religious expression.
6. He seeks satisfaction for his aesthetic needs, such as harmony in the arrangement of his environment and aesthetic fulfillment in his creative efforts.
7. He seeks satisfaction of his needs as a total personality, such as contentment gained from a complete and abundant life and self-respect developed as an individual.

Beliefs About Our Nation's Culture

1. Our culture is based upon the importance of the individual within the group.
2. Our culture is dynamic and changing at an increasingly accelerated rate, but all changes do not necessarily contribute to human progress.
3. Our culture has developed in a democratic society with group processes becoming increasingly important as society becomes more complex.
4. Our culture is based upon the political equality of man and growing reliance upon the democratic spirit and process which more and more pervades all aspects of life.
5. Our culture is influenced by a variety of political, religious, social and economic ideologies which may create conflicts and stimulate or retard progress.

6. Our culture in the 20th Century is confronted with many unsolved problems, arising from conditions largely created by science and technological development, such as a rapidly growing population, increased leisure, earlier retirement, greater longevity, mobility of population, urbanization, specialization, increased complexity of living, changing patterns of family life, rapid mass communication, and a shrinking world.
7. Our culture is becoming steadily more humane and is making increasingly effective provisions for the well-being of the individual.
8. Our culture is increasingly affected by the interdependence of individuals, groups, and nations.
9. Our culture is permeated with the ideal of an increasingly good life for all.

Role of the School

The school is a major institution through which our cultural heritage is transmitted and by means of which the members of society are prepared to evaluate social changes. The intellectual development of each member of society, to the degree that he is able to profit thereby, is the primary responsibility of the public school. The school shares with other institutions and agencies such as the home and the church the responsibility for the physical, social, emotional, aesthetic, moral, and spiritual growth of individuals.

The objectives of education grow out of and reflect society's understanding of and beliefs about the nature of man, the nature of society itself, and the concept of the role the school plays in the culture. New insights or understandings growing out of experience or research in any of these areas are reflected in the objectives of the school.

The following specific objectives of education in Oregon are derived from the beliefs about man and his culture delineated above and form the bases for the framework of public education in Oregon. They should be examined, evaluated, and adapted by lay and professional groups in local school districts when formulating their statements of educational beliefs to serve as foundations for locally developed educational programs.

Objectives and Their Implications

OBJECTIVES	IMPLICATIONS FOR ELEMENTARY SCHOOLS
Citizenship—The good citizen knows his country—its people, its history, its geography, the structure and function of its government, and its internal and external problems. He understands the fundamental principles of American democracy—political, economic, social, moral, and spiritual. He is loyal to American ideals, is proud of his heritage, respects constituted authority, has concern for the welfare of his country and of his fellow men at home and abroad, and seeks ways to increase world cooperation towards a just and lasting peace. He participates in the life of his community and nation by exercising his rights and assuming his responsibilities as a member of a free and self-governing society, and he strives to improve it.	**Citizenship**—To assure children experiences in developing appreciation of, as well as expressing loyalty and respect for, our country, its ideals, its laws, and its symbols. To know, understand, and appreciate our heritage. To give children opportunities to learn and practice the democratic skills in meaningful situations; e.g., Making choices Abiding by decisions of the majority Listening to ideas of the minority Delegating responsibilities Associating and accepting responsibilities with privileges Seeking creative solutions to problems Making compromises Planning and evaluating Assuming responsibilities of citizenship Learning skills of "following" as well as of "leading" To assure children opportunities to learn about other cultures; to develop an appreciation of their values, and to know our country's position in the world of nations.
Basic Skills of Communication—The effective citizen has, to the extent of his ability, achieved proficiency in use of the basic tools of learning. He recognizes that communication is fundamental to intellectual development and has acquired skill in receiving ideas through reading, listening, and observing and in expressing them through writing and speaking. He understands the use of symbols from other fields such as mathematics, science, music, and	**Basic Skills of Communication**—To develop intrinsic motivational competency for learning and achieving compatible with a high concept of self which will continue to function after the formal years of schooling. To foster the creative process as well as creative expression and to provide an environment in which the creative ability of every child will be recognized, appreciated, and released in whatever form it appears.

(Objectives and Their Implications continued)

OBJECTIVES	IMPLICATIONS FOR ELEMENTARY SCHOOLS
the visual arts and may have extended his range of communication by mastering other languages. He recognizes that learning is continuous throughout life. He employs the basic skills efficiently to gather, organize, and disseminate information, to think critically, to solve problems, and to gain enjoyment. He uses the skills and understandings to acquire knowledge and to participate in individual and group activities.	To assure children opportunities to learn the basic skills necessary for communicating with others through speaking, listening, reading, and writing in relation to their abilities. To assure children opportunities to develop competencies in quantitative, abstract, and logical thinking: counting, measuring, computing, and estimating in relation to their abilities. To stress and foster children's abilities to think independently and critically. To provide children with opportunities to acquire a wealth of knowledge and facts and to learn to use such information as tools for the solving of today's problems.
Health—The educated person knows the structure and functions of his body, is aware of hazards to his own and his community's well-being, and knows desirable mental and physical health practices. His health practices are based upon factual information. He understands the role of health services in the welfare of the community and the importance of good health to himself and others. He understands the interrelationship of mental and physical health. He finds satisfaction in developing and maintaining good health habits and attitudes. He regards physical and mental fitness as a personal obligation as a family member and as a citizen. He practices safety and applies health knowledge in daily living, and supports efforts to safeguard and improve the health of the community.	**Health**—To assure every child the opportunity to develop physically, mentally, socially, and emotionally in accord with his total growth pattern. To accomplish this objective each child has the right to Have a balanced school day Be a member of and have a feeling of belonging to a group Be respected for his uniqueness and to have his potentials strengthened Be challenged to develop his abilities to their capacities Have successful opportunities both for experiences as an individual and as a working member of various size groups Learn acceptable behavior patterns for expressing feelings Develop a positive concept of self which is accurate and realistic. To provide children with a wholesome physical-developmental program within a safe and challenging environment.
Family Life—The effective family member has knowledge and skills which result in the wise use of money, time, and energy; the provision of adequate food, clothing and shelter; the care, training, and guidance of children; and constructive interrelationships among members of the family and with the community. He recognizes the family as the basic institution of our society, and also its changing role in our contemporary society. He has an appreciation, respect, loyalty, and a sense of responsibility for his own home. He maintains affectionate home relationships. He provides an adequate and secure home within his means. He accepts his share of the duties and responsibilities for maintaining satisfactory personal and family relationships.	**Family Life**—To foster an understanding and appreciation of the various roles of family members and to help children assume their responsibilities as participating members of their families.
Economic Life—The educated person has a knowledge of our natural and human resources and of the necessity for their wise use and conservation. He understands the workings of the economic system in our society and he has some comprehension of other systems. He recognizes	**Economic Life**—To assure every child opportunities to discover the interrelationship of man with his habitat and to develop an understanding of the economic and cultural changes resulting from man's inventions.

(**Objectives and Their Implications** continued)

OBJECTIVES	IMPLICATIONS FOR ELEMENTARY SCHOOLS
that the abundance of goods and services he enjoys as a consumer is largely a result of the high productivity of a free enterprise system. He accepts the necessity for controls that will help insure a fair distribution of the products of the economy. He appreciates the value of labor and feels satisfaction in doing well any task he undertakes. He acquires the skills and understandings that will provide a foundation for vocational success. He learns about occupational opportunities and requirements. He earns his way in the world; and he secures information that enables him to consume goods and services wisely.	
Moral and Spiritual Values—The educated person has gained an insight into moral and spiritual values. He knows the main facts of the history of religions and he understands the contributions of the Judeo-Christian ethic to Western culture, and the role of our national ideals. He is familiar with the significant contributions of literature, art, music, science, and other fields of learning to moral and spiritual growth. He seeks support in a faith that upholds the virtues of goodness and morality and which explains and reconciles his relationship to fellow men and the universe. He regards devotion to truth and services to fellow men as a high goal among the active outcomes in his life. He places human values above material things. He is humane and considerate in actions and dealings, has sympathetic understanding of differences and deviations, and is respectful of the rights of others. He exhibits personal integrity measured by the accepted values of the culture. He defends religious liberty and other human freedoms vigorously and opposes all forms of tyranny over the human mind. He responds with appreciation, reverence, and reasoned conduct to the worthy ideals of his country, his faith, and his culture.	**Moral and Spiritual Values**—To assure every child a school environment in which he will learn the basic values on which our culture is based and upon which he will develop his own personal values under guidance.
Aesthetic Values—The educated person has developed sensitivity to aesthetic values. He can discriminate among expressions of artistic and creative achievement. He understands fundamental aesthetic principles having to do with expression, organization of environment, and our art heritage. He observes, appreciates, and wants to preserve the things of beauty provided by nature or produced by man. He incorporates aesthetic principles into his daily living. He supports the endeavors of his community to improve the aesthetic life and opportunities of the people.	**Aesthetic Values**—To assure every child opportunities to develop a sensitivity to the beauties of living in all its aspects, and to have numerous opportunities to create, participate, and appreciate within his potential capacity the various phases of aesthetic endeavor: art, music, literature, drama, dance, radio and television, crafts, home and community beautification.

Values Which Underlie All School Experiences

Values are the root of all good—and all evil. What we cherish, what we desire out of life, in large measure makes us what we are in human character, governs our actions and their consequences.

Values are learned. From birth on we must be very busy learning values—what is ours, what is theirs; what hurts, what helps; how others react to our ways of behaving; who is to be trusted, who feared; what our place is in the great unknowns. In large measure we learn the quality of our human living because of the values surrounding us from our earliest days.①

The educational objectives for the state of Oregon are Citizenship, Basic Skills of Communication, Health, Family Life, Economic Life, Moral and Spiritual Values, and Aesthetic Values. Each area of subject matter introduced to the child by either its process or content will make its contribution toward the understanding and achievement of goals. However, living the good life in the American way consists of far more than this. It consists of coming to believe, along with others in the United States, that certain ways are good and certain other ways are not good. This fabric of beliefs stems from individual feelings and perceptions. It is composed of how the individual feels about himself, how he feels about others with whom he lives and works, and how he feels about his environment. The establishment of right beliefs and true feelings are crucial to the child and to our society.

Providing this value framework is pivotal; it makes the task of the elementary teacher an obligation and a privilege to explore these experiences with children. For six to eight years in the elementary school, the child experiences those things which he comes to believe are good and those which he learns to shun as undesirable. These feelings of goodness and badness are *his* values. Whatever is esteemed as desirable or worth merit is a value. Our American culture is based upon a network of values; a few are ethereal, idealistic, and intangible; but most of them are readily experienced and very essential to the functioning of American democracy.

This American way of life is a rather young phenomenon in the culture of the world, yet it is one which many countries are seeking to emulate. Just what it is, is very hard to delineate. Whatever the people of the United States traditionally believe is good becomes their values. Whether a practice or belief is considered right or wrong depends upon the culture in which it is found.

Because these value understandings evolve out of daily life, the elementary teacher is responsible for introducing the child to many of the experiences from which he derives his feelings of satisfaction. The teacher uses accepted values as an underlying base in all that he does to guide the child. This is the fabric of which American life is woven since the child in our democracy gains many of his perceptions from his teachers. As the teacher works to establish the value beliefs necessary to a wholesome society he will be hopeful that bit by bit each child will fully perceive and accept as his own those values appropriate to the times. Probably a teacher's most important contribution will be the result of his handling of these values. The following outline adapted from the U. S. National Commission for UNESCO summarizes those values accepted by leaders in this country and by most teachers.

Values

CITIZENSHIP

For Our National Relationships

We believe it is good to have—

A. Faith in the American democratic way of life and belief that it provides a means of solving our problems.

B. Respect for the rights of each individual, both personal and social.

C. Respect for law and order.

D. Freedom of privacy and peaceful assembly without invasion by the government.

E. Cooperation in the solution of social problems by individual and group action.

F. Belief in the right of each citizen to participate in decision making through the ballot.

G. Recognition of the importance of literacy, objective thinking, and critical and discriminating judgments in the solution of problems.

H. Pride in the American heritage.

I. Willingness to share with the world our experience in the solution of problems.

J. Respect for natural law embodying the principles of justice which transcend the wills of men and their rulers.

K. Acceptance of responsibility as an obligation of freedom.

L. Belief in freedom to express orally or in writing opinions honestly held.

M. Regard for the group, for group activity, and for minority positions.

N. Access to all knowledge as a right except for particular information which might endanger the whole community.

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① National Education Association, Department of Kindergarten, Primary Education, *Plus Values*, the Association, Washington, D. C., 1958, Foreword.

O. Acceptance of public office as a public trust.
P. Belief in the right to a speedy public trial by jury and the right to refuse to testify against oneself.
Q. Belief in law as a changing set of policies keyed to the evolution of society.

For Our Interworld Relationships

It is good that—

A. Changes in relationships between nations can and should be accomplished by peaceful means.
B. Nonviolence should be a primary policy of the United States.
C. Because we cherish national sovereignty for ourselves, every nation's sovereignty should be respected.
D. In using collective security through a group of nations, the exercise of freedom by one nation need not impair the freedom of other nations.
E. A free nation should live up to its responsibilities and commitments and honor its treaties.
F. Free men should volunteer for public service abroad.

BASIC SKILLS OF COMMUNICATION

We believe in—

A. Acquisition of knowledge because of its great value.
B. The formation of a constructive self-image.
C. Man's ability to communicate symbolically with man, the past and present.
D. The arts as an expressive media which may reflect a historical period.
E. The study of science as a means of unraveling the unknowns of the universe and of serving the needs of mankind.
F. The tradition that each individual is a unique center of power and has a contribution to make to the world.
G. The ability of each individual to make a contribution in relation to his capacities.
H. Teaching basic social and cultural aspects of our society for the fulfillment of the individual.
I. Teaching basic skills so that people may be able to inform themselves of issues and to consider the issues rationally.
J. The equality of educational opportunity for students from kindergarten through the university as a desirable foundation for a democratic society.
K. The state's right to require school attendance.
L. Shared responsibility for education by many social institutions.
M. A broad general education with specialization to continuously strengthen the American democratic way of life.
N. Education as a life-long process.

HEALTH

We believe that—

A. An important resource of a nation is a healthy people.
B. There should be community concern for the physical status of each individual.
C. It is essential to give adequate attention to the mental health of the nation and the individual.
D. Water, power, light, heat, and air supplies are of vital concern to health; and, therefore, the public has an interest in their conservation, their distribution, and, in the case of water and air, their purity.
E. Sewage and sanitation are proper concerns of the government and its people.
F. Public recreation facilities are desirable to the health and welfare of our people.
G. Mental fitness and knowledge of the care and functions of his physical body are an obligation and responsibility of every citizen.
H. We should instill in each child a desire to develop and use a healthy mind and body.

FAMILY LIFE

We believe that—

A. The family is a basic social institution.
B. Loyalty of family members to each other is a highly desirable condition with which the state should not interfere.
C. Each person may have as much freedom as he can manage insofar as it does not restrict the freedom of others.
D. The family has an early responsibility for and shares with the school in the development of values within the individual.
E. The family has special concerns for information about sexual life provided to children and the moral and spiritual values developed within them.
F. The school has a special commitment to prepare everyone for the skills of family living and the duties of parenthood.

ECONOMIC LIFE

We value—

A. A job as giving honorable status to an individual.
B. Work as a desirable, active goal of the good life.
C. The well-being of the individual as essential to our government as well as necessary for a full and rounded life.
D. Efficient and increasing production as a necessity to American life.
E. Private enterprise and creativeness, and we esteem those who engage in these activities.
F. Profit making as a way of life as long as it is within reasonable and legal limits.
G. Competition in the production and distribution of goods.
H. The tradition that the ability, effectiveness, and potential of persons be recognized so that individuals may rise through continuing and increasing responsibilities.
I. The principle of collective bargaining.
J. The sanctity of the contract as the foundation for orderly and dependable relations.
K. The economic well-being of the community as the concern of the nation, and we are, therefore, willing for the government to assist certain economic groups in order to further the security of the nation.

MORAL AND SPIRITUAL VALUES

We believe in—

A. The principle that the individual is important in the eyes of God.

B. Freedom to worship and promote one's faith as conscience leads unless such practices debase the community.

C. Separation of the affairs of church and state.

D. Private rather than public support of religious organizations.

E. The need for some form of theism to explain the meaning and purpose of life.

F. The desirability of respect for the performance of acts that contribute to the well-being of the individual and society.

G. Sharing with other peoples of the earth what we have and know about a better life.

H. The tradition that government must respect the wishes of those whose consciences will not allow their participation in certain patriotic and governmental activities.

I. A moral law to govern men and nations.

AESTHETIC VALUES

We believe in—

A. Regard for the ability to create in any medium.

B. Regard for the interpretation, appreciation, and understanding of all forms of aesthetic work.

C. Regard for creation and presentation of music.

D. Regard for painting as a form of communication expressive of the individual and the times.

E. Regard for the dance and drama as an expression and enrichment of daily life.

F. Regard for and creation of literature and poetry as a means of providing a fuller and deeper life for all people.

G. Regard for quality of design, tradition and innovation, form and function in artifacts and architecture surrounding our daily living.

H. Regard for collecting and making available to the public painting, sculpture, crafts, and art of any kind expressing the feeling of contemporary times or bygone days.①

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① In the preparation of this material extensive use was made of the publication by Ralph Henry Gabriel, *Traditional Values in American Life*, prepared for the U. S. National Commission for UNESCO.

Child Development and Behavior

The Developing Self

As the child grows he develops in his ability to relate to the universe—to all its animate and inanimate stimuli. The child is the unique center of his universe, and is nurtured by exposure to his environment. Self-image, genetic potentiality, cultural heritage, and maturation shape the child's becoming. The child is responsible for the way he responds to his environment through which his potentialities may be realized.

The child is continually becoming self-actualized. He perceives situations and occasions in relation to his views of the world. To educate him is to assist him to perceive in different ways and to become responsible for his behavior, his goals, and their realization.

There is a need for caution in making judgments concerning reasons and rationalizations for human behavior. Most of the hypotheses provide a framework to examine children's development. The holistic approach to child study, from which the term "whole child" evolved, has concerned itself mainly with investigations of the various aspects of human development; i.e., intellectual, emotional, physical, and social. Knowledge and understanding of child development will continue to expand. The educator needs to use the evidence which is now available and to be ever alert to new research findings.

The child is understood through his "goal-seeking" behavior. How the child behaves influences his development and each affects the other. The development of the individual is unique throughout his life. The mental development of the child is the most significant aspect of human growth. The teacher strives to understand how the child thinks at various ages and why he thinks as he does in school situations. The teacher then relates these understandings to the educative process.

Some persons believe growth patterns for individual children can be established. The assumptions and ideas presented in this chapter will serve as a guide to observation, investigation, and analysis for increased understanding of the "process of becoming."

These aspects of child development are for the teacher's use in relating ideas and understandings about children to classroom practices. Teachers know the profound influence of the learning environment upon the growth of the child.

Intellectual Development and Behavior

The unique function of the school is the development of the intellectual aspect of the child. The mental life of the child profoundly affects other aspects of development which, in turn, affect growth of the child's intelligence. There are many interpretations of intelligence which will assist the teacher in understanding mental growth. Effective instructional practices will provide continuous opportunities for children to expand their intellectual activities to increasingly higher levels. Their responses will reveal development in creative and productive thought. The intellectual experiences should encompass searching for patterns and structure of knowledge and phenomena which will lead to discovery and greater involvement of the total intelligence.

ASSUMPTIONS AND IDEAS WITH IMPLICATIONS FOR THE TEACHING-LEARNING PROCESS

ASSUMPTIONS AND IDEAS	IMPLICATIONS
Early Years	
The child is concerned with himself and objects. Empirical trial and error is one of the most elementary developments of the intelligence. There is much intuitive thought and directed action. The formation of simple habits is the child's way of adapting to environment. The child begins to symbolize his thoughts. The child begins to group ideas and patterns and to discover relationships. The child is beginning to distinguish his point of view from others. Often the child cannot explain the "why" of his actions.	The teacher provides a classroom rich in environment with an abundance of appropriate objects for the child's exploration and use in expressing his thought. The teacher can learn much about the child's thinking by observing and recording recurring behavior and responses. Through concrete instructional materials and freedom of action, the child's understanding is revealed to the observer. The teacher must continually assess the child's responses and behavior to know the expanding use of higher levels of intellect.
Middle Years in School	
Formation of concepts is now more frequent. The child can use higher levels of thinking. The child is beginning to verbalize and demonstrate his logic to explain responses. Values and ideas from the culture and society are now used more frequently. Peer group pressures begin to affect intellectual growth. Differences and likenesses in intellectual development are more apparent. The span and rate of memory is increased. The child is motivated to practice known skills rather than to strive for new skills. There are periods of "apparent loafing" when in reality the child is observing or listening. Adaptations to new situations and solutions to problems are based on experience and knowledge more than on intuition and direction.	The teacher continually searches for insights into how the individual learns. It is the teacher's responsibility to select the best experiences to assist the child in his adaption to become an effective and efficient person. Positive pressures from the group are stressed by the teacher. Experiences are planned and encouragement is used to help the child gain an insight into an effective use of memory. The teacher is sensitive to the need for some children to exclude themselves for reflection or to decelerate their pace.

(Assumptions and Implications—Continued)

Later Years in School

There is an increase in the exchange of ideas and concept formation. Differences and likenesses in intellectual development are even more obvious. Concepts are more easily demonstrated and the child is able to reflect on his thoughts. The child's ability to question and use causal relationships increases rapidly. The child is becoming independent in the use of modes of inquiry.	Ready-made ideas and concerns are withheld and planning allows ample time for exchange of ideas. Learning experiences are highly individualized. Individual exploration and experimentation is desired as well as cooperative group experience. There is a beginning of rejection of cultural values and societal influences.

Emotional Development and Behavior

The impact of research and study of child development upon education is of great significance. Continually changing ideas and assumptions concerning emotional growth and its relationship to other phases of growth provide a body of knowledge for the teacher's inquiry. The effective teacher is continually inquiring about the concerns in a child's life. The teacher strives to communicate acceptance, understanding, and empathy. The effective teacher is sensitive to responses to aroused emotions. Awareness of how the child sees himself as he perceives situations is the teacher's continuous goal. Through altered conditions and replanned experiences, interaction can be changed to bring forth different perceptions and growth in emotional development.

Effective emoting enriches the child's life and enhances learning. Excessive emoting decelerates learning while negative emotion suppresses appropriate emotion. It is generally accepted that the emotional life of the child profoundly affects the growth of his intelligence and all other aspects of his development.

Emotional developmental patterns are altered by teachers and peers in the classroom. The teacher is a model for emotional learning. An emphathetic atmosphere balanced with a businesslike procedure is conducive to children's learning. Effective and efficient emotional involvement is the teacher's prime consideration. The teacher has a vital role in the mental health of the child and the dynamic process of self-realization.

ASSUMPTIONS AND IDEAS WITH IMPLICATIONS FOR THE TEACHING-LEARNING PROCESS

Early Years

ASSUMPTIONS AND IDEAS	IMPLICATIONS
The child's perceptions produce impulses and feelings. The child is mainly involved in his own feelings, concerns, and view of reality. Emotional responses usually last only a few minutes. Some children are now learning to gain control of emotion. Outbursts of emotional response such as anger, joy, and love are unpredictable. The child laughs eagerly and shows much emotional response to humor. Emotional responses are often inappropriate. Emotional growth and responses are related to physical condition and vitality. The child reveals his feelings and thoughts about himself verbally. When the child's interest in continuous movement is inhibited, the result is often emotional reaction. The child begins to respond to more verbal stimuli. Abstract words have little meaning until later.	The effective teacher strives to know what is reality to the child. The teacher strives to communicate and feed back to all who are responsible for the child the anxieties and concerns revealed by the child's responses. The child's attention is easily diverted. The teacher's calm and reassuring attitude will assist the child to gain control of himself. Attention may be diverted to an interest in the immediate environment. Mental health is often enhanced by frequent experiences with humor. Sensitivity and a feeling of empathy are developed by the skillful teacher. When emotions are intense, expectations for the child are changed. The teacher needs to be constantly aware of all obstacles to emotional growth. Daily experiences of the child include opportunities for frequent and boisterous movement. Abstract words for feelings such as patriotic and cooperative are not understood by the young child.

Middle Years in School

There is an increased awareness and control of emotions. Laughter response usually occurs during active social contacts with peer groups. Concealed emotions are often expressed by aggressive and attention getting acts. The child symbolizes his feelings in many ways. Emotional responses may not be well defined. There is much emotional involvement in striving for group acceptance and membership. The child has feelings of doubt about adult judgment and may identify with a parent-figure outside the home. The child's interest in games contributes to his emotional growth. The child's feelings about the teacher and learning experiences affects his development. The child can now control himself when he is confronted with things considered difficult to do. The child can change his emotional response as he sees situations in different ways.	Awareness of each child's emotional involvement and careful guidance and counseling is a challenge to the teacher. Much can be learned from the interaction between the child and others. The child has more opportunity to express emotions when learning experiences are characterized by exploration, inquiry, and activity. The sensitive teacher can determine when a child's emotional responses are substituted for real feelings or when they are hidden. The emotional climate of the classroom can facilitate appropriate group identification. Respect for the child's interests, ideas, and judgment is necessary for a good interpersonal relationship. The effective teacher is continually asking the child how he feels about the learning situation, its content and pertinent events, and how he uses ideas for replanning. The teacher's task is to know the "right amount" of pressure needed to lead each child to a feeling of success which is his right. The beliefs of the child concerning appropriate emotional growth interact with intelligence development and both contribute to the other as the teacher communicates to the child that his values are respected. An effective interpersonal relationship is facilitated by awareness of how the child sees the situation and how he symbolizes his feelings.

(Assumptions and Implications—Continued)

Later Years in School

The child's "self-perception" profoundly influences his responses.	Sensitivity and awareness of the child's feelings and self-image are far more significant than data about the child.
The child responds more specifically and appropriately to situations and stimuli.	The teacher respects the child's values and helps the child gain insight into the value of self-control through role playing and other techniques for complete involvement.
The child gradually suppresses or inhibits more of his feelings and has fewer spontaneous emotional responses.	The teacher continually assists the child in learning to perceive in different ways and to express feelings in appropriate ways.
The child may show conflict by generalized anxiety, timidity, shyness, nervous habits, and specific fears.	Negative emotional reactions inhibit and decelerate learning.
The child narrows his perception of a situation the more emotionally involved he becomes.	Encouragement is the efficient way to assist development.
The child's emotions and mental health are now more profoundly affected by the teacher.	The teacher provides opportunities for adjustment to factors which children cannot change but which may cause emotional trauma.
The child is now capable of making a conscious commitment to learning.	The effective teacher has a positive self-image and is continually aware of the impact of his behavior on others.
This feeling contributes to emotional and intellectual growth as one affects the other.	The teacher facilitates a feeling of mutual respect, cooperation, and freedom for spontaneous and individualistic responses.
The child cannot often distinguish between mistakes and failures.	Excessive competition is eliminated from learning experiences.
The teacher helps the child to accept mistakes and discouragement and to use them for future learning.	The teacher helps the child accept mistakes as stepping stones for future learning.
The child is now changed less by manipulating the environment.	The teacher needs to know how to help the child become more aware of how he is perceiving and feeling.

Physical Development and Behavior

The chief concern about children's physical development and formation of health habits is the physical well-being of each child. The teacher becomes aware of the child's physical status by observing physical maturation and by being sensitive to the child's feelings about his body changes, strengths, skills, and vitality. Physical development involves the child's thinking, feeling, moving, and identifying with others. His experiences contribute to physical growth and his growth contributes to his experiences. The child has a right to the best guidance for maximum physical development. He is encouraged through continuous adaptions to a positive self-concept which influences physical development.

Learning experiences for the individual can be determined best by accepting the wisdom of the mind and the sensitivity of the body which lead the child to seek an appropriate activity. If the expectations are too difficult or too easy, the child will behave in an undesirable manner. There are a rate and pattern of growth which provide continuity in the development of each child. Genetic conditions determine the rate of growth, phases of acceleration, and timing of sexual maturity while conditions of achievement of maximum growth and vitality are provided through skillful teacher planning and guidance. When planning for individualized learning, the teacher must consider that superiority in one aspect of physical growth tends to be accompanied by superiority in others. The rapidly maturing child will accomplish all of the achievements which increase with chronological age earlier than the slowly maturing child. The teacher is responsible for knowing these and many other facts which affect the progress of development and its relationship to the child's self-image.

The creative power of the child's mind influences physical growth. When one aspect of growth is dominant, other aspects of growth may be slowed down. Maximum physical growth, a commitment to good health habits, and appropriate balance in daily living are encouraged by continually expanding the experience of the child.

ASSUMPTIONS AND IDEAS WITH IMPLICATIONS FOR THE TEACHING-LEARNING PROCESS

Early Years

ASSUMPTIONS AND IDEAS	IMPLICATIONS
The child's growth is relatively slower than in preceding and following years.	The teacher's responsibility is to recognize how the child's growth and physical vigor affect his fitness for school experience.
There is an increase in large muscle coordination and motor development is uneven.	The child enjoys vigorous activities planned for short spans of time followed by rest.
There is a susceptibility to respiratory diseases.	The child is encouraged to accept dental transition without undue sensitivity.
The child is easily fatigued but his recovery rate is rapid.	Long periods of attention to close work as well as frequent shifting of vision from a distant chart or chalk board to writing or other near-vision tasks is undesirable.
Children are in various stages of dental transition.	Replanning and grouping for physical activity is dependent upon the child's skill and concept development.
Girls tend to lose their first teeth earlier than boys.	Assessment of maturation is necessary when planning for development of complex skills involving hand and eye coordination.
Most children are farsighted until the later part of this early phase.	Pressure to change left-sidedness is discouraged.
There are boy-girl differences in growth such as boys generally being heavier and taller than girls during the early years in school.	The child is often ready for a skill before environmental conditions provide an opportunity to assist the child in the learning.
Skeletal, muscular, and neurophysical maturation affect the child's eye-hand coordination.	Opportunities for use of the senses affect development. An absence of rich experience often retards sensual growth.
The child is replacing any tendency for two-sidedness with one-sidedness.	
Motor skill development is highly related to other learnings.	

Middle Years in School

ASSUMPTIONS AND IDEAS	IMPLICATIONS
The child usually has developed basic motor skills.	For continued refinement, instruction in basic motor skills is necessary.
The child's ability to maintain balance in performance of skills increases since muscular development is more advanced.	Instruction is organized for the enjoyment of many games.

(Continued—Page 16)

(Assumptions and Implications—Continued)

The child's involvement in vigorous exercise is highly individualized.

Sensory growth is developing and affecting the use of the body.

There is an increase in eye-hand coordination.

Neurophysical maturation continues to affect complex skill development.

Extensive opportunities should be available for physical activity and skill development.

The level to which the child is developing his senses is influenced by his view of himself and the richness of his experiences.

The teacher assists the child to develop the sensory organs in order to gain new knowledge, enjoy his world, and become more aware of his environment.

Later Years in School

There are greater differences in acceleration of various growth phases with sudden spurts of height and muscular expansion.

During the rapid phase of growth the child seeks, uses, and consumes many experiences.

Excellence in skill development is dependent upon neurophysiological development.

Some real or imagined deficiency in the physical processes may affect behavior and cause serious learning problems.

Physical growth or "biology" is an even more important factor in behavior than in earlier years.

The child who matures early appears to be more relaxed and attractive than the maturationally late child who may appear to feel personally inadequate and dominated by others.

Sexual changes influence the ease of movement and coordination.

The larger child will attain adult proportions at an earlier age, especially girls.

The sensory potential of the child may be functioning at a high level of development.

Eye-hand coordination may appear at a high level of functioning.

To maintain performance at a high level, the child continues to use basic motor skills.

Assisting the child in a realistic appraisal of himself and in planning with him the possibilities for modifying physical skills and strength through training is the teacher's concern.

Since height, weight, energy, and health affect athletic achievement and leadership, the teacher utilizes this knowledge in planning.

The more physically mature child can participate in more varied social roles with ease, adjust to problems, achieve in athletics.

When performance is affected, the teacher reassures the child who feels anxiety about physical change.

Due to adult appearances, expectations for the large child are often too great.

Use of the senses is developed by planned learning experiences.

Excellence in coordination is developed through an opportunity for many choices.

Social Development and Behavior

Schools with child-centered programs provide opportunities for each child to identify with others and to strive toward self-actualization. The values of the school, community, and society affect the child's social development and learning. The child's social values and learning in turn affect the world. As the child identifies with and moves in and out of various groups, he develops awareness of the perceptions and skills of a cooperative social person.

The teacher is sensitive to the social implications of the school experiences and seeks to know how the child views himself. The teacher encourages the child to share his ideas and feelings and in turn the teacher shares with the child. The teacher provides an environment rich in opportunities for social successes and facilitates the expanding of each child's "sense of self."

The child is continually involved in the process of socialization. The teacher is sensitive to the essentials for creating an atmosphere for cooperative interaction and for designing social experiences for each unique child.

ASSUMPTIONS AND IDEAS WITH IMPLICATIONS FOR THE TEACHING-LEARNING PROCESS

ASSUMPTIONS AND IDEAS **IMPLICATIONS**

Early Years

The self-image influences social development more than the family and school.

The child uses memory, social cues, and desire for self-satisfaction to realize social development.

The child seeks affection, help, praise, and some limited responsibilities as his view of the world becomes more varied.

Social skills increase when the child begins to seek peer approval and to select special friends, and progresses forward from simple right and wrong judgments to the influencing of others.

Skill in sharing experiences and ideas begins.

There is identification with small groups and some begin to choose special friends.

The child has imaginary as well as real playmates.

There is a beginning of the separation of boys and girls in play.

The child begins to plan socially toward the later part of early childhood.

Cooperation in group activities may be difficult, but there are beginnings of acceptable behaviors in loosely organized groups.

A child may begin to make decisions and to be self critical.

The effective teacher identifies with the child and his world to guide and lead him to discover and adapt.

The teacher accepts each child though his behavior may be inappropriate.

The teacher helps the child accept appropriate responsibilities even though they are unpleasant.

The teacher plans a variety of social experiences to provide opportunities for both leadership and followership roles for each child.

Authoritarian attitudes inhibit social growth.

Learning experiences are in accord with the culture's code of manners and behavior.

Respect for the child's judgment facilitates individual and group planning.

Too many choices may confuse the child.

Democratic leadership encourages independence.

Middle Years in School

The child is concerned with techniques for social living such as control of emotions, respect for others' opinions and interests as he perceives ways of behaving in a group.

The child's social-moral growth continues to be dominated by the family and the community.

There is identification with many adults, larger groups, the neighborhood and the community.

The child is encouraged to develop more complex social skills.

The teacher as a model influences the child toward socially acceptable patterns of behavior.

The teacher considers the values of the group and the importance of its influence.

There is a continued concern to help the child perceive differently.

(Assumptions and Implications—Continued)

The child is less egocentric and concerned with adult authority and more concerned with belonging to a group.

There is the beginning of desire for prestige. The child is more aware of his power in social relationships.

The child develops social skills as he perceives ways of behaving in the group.

The child is affected by all interaction with individuals and with groups.

The interrelationship of social and emotional behavior is apparent.

The child's perceptions of himself begin to determine his social-moral conduct.

Girls are often more aggressive than boys. Different boy and girl interests are developing rapidly.

The teacher is responsible for creating social situations to involve the child in challenging and effective ways.

The development of social skills is influenced by the classroom atmosphere.

The child may develop anxiety as a result of an awareness of and feeling of inadequacy about the relationship between his social behavior and social values.

The teacher's effectiveness in altering negative and expanding acceptable social-moral conduct is determined by an awareness of the child's self-perceptions.

Later Years in School

Social interaction becomes more frequent, complex, and involved.

Pressures from the group and the changing society are greater and more numerous.

Set patterns of behavior now tend to conceal the self-image.

In developing human relations, the child tends to substitute the peer group for the family.

Intelligence, school achievement, and the home socio-economic condition are beginning to influence peer acceptance.

There is increasing sensitivity and pleasure in sharing ideas.

The self-image affects increasingly the child's moral conduct as well as his conformity to social convention which often inhibits the child's becoming a self-actualized individual.

The child tends to move in and out of groups.

There is a growing awareness of social problems and a desire to correct them in the child's expanding community.

Friends and future companionship occupy the thought of the child more than family and school social concerns.

There is a slower rate of change in social habits.

The child may pursue interests independent of group domination.

The child's social growth is accelerated when he discovers meaning for his life and makes decisions concerning himself.

The child should become aware that cooperation and competition are necessary in our society.

The child is counseled in effective use of peer popularity.

There is recognition that planned opportunities to identify with many groups assists the child.

Evidences of the child's awareness are signs of maturity which guide the teacher in planning experiences.

The teacher is aware of the struggle between capacity to strive for individuality and pressures to become socialized in relation to society's rules for behavior.

Concern for insignificant misbehavior and incidents is to be avoided.

The teacher facilitates freedom for individual creativity.

Respect for the child's judgment encourages competency in making choices.

Social manners and behavior are taught through participation in school activities.

The teacher plans for interaction in order to help the child understand the other person, which is the highest form of social adjustment.

Thinking About the Child

The conceptual or idea orientation to child development attempts to relate knowledge from established areas such as psychology, anthropology, sociology, biology, and physiology. Concepts of human development are emerging from philosophical ideas such as described by Erich Fromm:

> . . . there is no meaning to life except the meaning man gives his life by the unfolding of his powers, by living productively; . . . the one task that matters [is] . . . the full development of our powers within the limitations set by the laws of our existence.①

From this and other contemporary thought, human development is the process of becoming.②

The handbook, *Teaching Oregon's Children*, presents a concept of child development and the implications for teaching relevant to Havighurst's "developmental tasks."③

Through the developmental tasks approach and other research findings, the teacher will continually inquire about growth and development and relate ideas to the concerns of individual children.

Teachers will examine research for implications applicable to child development and utilize these in planning for the teaching-learning process. From "developmental orientation" the teacher may find answers to questions such as—

What changes occur within the organism as it matures?

What conditions affect the course of these changes?

What processes are involved in change?

How do these changes influence and how are they influenced by the organisms' interacting and coping with environment?④

The teacher's knowledge combined with the observations of the "developing child" will aid in the individualization of learning which helps the child to become a productive and contributing person. Experiences are perceived as unique to himself by the individual child who has the responsibility for his becoming.

Glossary

"**Development**—The complex product of the forces of maturation and of nurture as described previously is called development. (In the absence of adequate nurture, development would fail and such things as increase in size, attainment of body skills, or the acquisition of speech would not be possible.)

"**Growth**—We use the term growth to measure development. Growth is concerned with changes in size, complexity, and proportion and with such qualitative changes as those which occur in muscle, bone, hair, and pigmentation.

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① Erich Fromm, *Man For Himself*, Rinehart and Company, Inc., New York, 1947, p. 45.

② Adapted from Gordon W. Allport, *Becoming: Basic Considerations for a Psychology of Personality*, Yale University Press, New Haven, 1955, 101 pp.

③ Robert J. Havighurst, *Developmental Tasks and Education*, Longmans, Green and Co., New York, 1953, 334 pp.

④ Adapted from Irving E. Sigel, "The Need for Conceptualization in Research on Child Development," *Child Development*, The Society for Research in Child Development, Inc., Purdue University, Lafayette, Indiana, Vol. 27, No. 2, June 1956, p. 241.

"**Maturation**—The term maturation refers to the unfolding of a design which is essentially hereditary in origin. It is again a product of both the forces of maturation and nurture.

"**Nurture**—The term nurture is commonly used in the broadest sense to embrace not only feeding but all of the complexities involved in education and socialization.

"**Pattern**—A pattern of growth refers to the relationship of various measured characteristics within the individual.

"**Rate**—Scientific study enables one to speak with some certainty about the rate of development. Rate refers to the amount of increment or increase in structure or function in terms or units of time.

"**Sequence**—Sequence occurs in development—unless drastic measures are taken to alter the sequence, a child sits before he stands, he walks before he runs."①

*__EARLY YEARS IN SCHOOL__—The time in the child's life when he enters school—five years through eight years of age, approximately.

*__MIDDLE YEARS IN SCHOOL__—The time from eight years through eleven years of age, approximately.

*__LATER YEARS IN SCHOOL__—The time from twelve years through thirteen years of age, approximately. The later childhood years in school include puberty for some childen and especially girls who are often two years beyond the boys in the physical maturing process.

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① Adapted from Willard C. Olson, *Child Development*, Second Edition, D. C. Heath and Company, Boston, 1959, 497 pp.

* This division of the period of growth for the convenience of this publication is arbitrary and is given here to facilitate the use of the guide.

Organizing For Instruction

Organizing the School

An organizational pattern can facilitate instruction or hinder it, but no particular school organization can guarantee quality instruction. The success of any school organization depends upon the understanding the staff has of it and their commitment to it. Elementary schools in Oregon have traditionally followed a graded pattern with some multigrading, usually as a matter of expediency rather than by design.

Although certain organizational patterns appear to offer a high potential for facilitating individualization of learning, this goal can be achieved under most organizational patterns if the goal is really desired. To assure children opportunities to more nearly achieve their potential, any school organizational pattern requires a degree of flexibility in the administration of many district-wide policies, such as those relating to the curriculum, use of textbooks and instructional materials, reporting to parents, and record keeping.

TYPES OF ORGANIZATIONS

Over the years there have been recurring patterns of school organization, both vertical and horizontal. Some of the current types of school organization are here summarized briefly.

In the *graded* organization, it is assumed that there is a body of knowledge, skills, and concepts that is best acquired by all children when they reach a particular grade in the educational program. Our present knowledge of child development and the learning process seems to refute this assumption. However, if each grade is thought of as a year's experience for the child and the teacher is permitted to take each child where he is and guide him as far as he can progress comfortably, in relation to his potential, during the year, a major reorganization of the school is unnecessary.

In the *departmentalized* organization, the curriculum is fragmented with emphasis given to separate subjects and teacher competency in curricular areas. Children are often left unguided to find relationships between skills and content areas and to integrate their learnings.

In theory the *nongraded type* of organization emphasizes the belief that each child is unique and should be permitted to progress in accord with his own developmental pattern. Grade designations are eliminated with special emphasis on individualization of learning and continuous learning opportunities. Placing children of multi-ages in a group is often the last phase in the development of the nongraded organization. When mastery of content is the overriding goal, the nongraded organization remains graded in actuality.

In *team teaching,* responsibility for the instructional program for a given group of children is divided among the members of the team rather than assigned as the total responsibility of one person. "Cooperation and collaboration in the planning, presentation, and evaluation of instructional and guidance programs are essential aspects of team teaching."①

Cooperative teaching may be the beginning of team teaching. It cannot achieve all the values of team teaching although it has some intrinsic values of its own.

Sometimes team teaching, the nongraded organization, and multi-age grouping are combined to more effectively achieve a program to provide for continuous learning and to help individuals achieve their potential learning goals.

The *self-contained* type of organization in the broadest sense, long used in conjunction with the graded school, is equally suited to the nongraded type of elementary school organization. In the self-contained classroom, relationships between curricular areas can be facilitated, integration of learnings by the child guided, and continuous learning and individualization of learning achieved with a minimum of problems.

Grouping of children within the total school, either heterogeneously or homogeneously is another determinant to consider in the organization of a school. Although homogeneous grouping persists and comes into vogue from time to time, research findings are inconclusive. The expense and the problems involved with homogeneous groupings do not seem to justify its use. The use of heterogeneous or homogeneous grouping is closely related to the basic beliefs held, consciously or unconsciously, by the administration and staff of a school.

CONCLUSION

In arriving at a final decision relating to a school's organization, the superintendent, principal, and staff need to first examine their beliefs and educational objectives. When educators know their goals, they are in a position to make the best possible choices for the organizational pattern of the school. Only when the organization is compatible with the school's philosophy can the stated educational objectives be realized.

In the initiation of any new school organization, it is important that there be a thorough understanding of the basic assumption of what any proposed organization can accomplish. The curriculum needs to be in accord with the school's philosophy and goals as well as do the policies for the use of texts, instructional materials, reporting to parents, and record keeping. Antiquated policies in these administrative

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① State Department of Education, *Principles and Policies for Elementary School Classroom Organization in Oregon,* The Department, Salem, Oregon, 1962, p. 15.

areas often prevent the realization of the school's educational objectives.

A planned period of in-service for all the staff will foster success in affecting change in a school's organization.

It should also be remembered that no organizational pattern can be successful if the pupil-teacher ratio is such that teachers do not have time to know the children for whom they are responsible. There is no "cheap road" to quality education.

EVALUATION

There is probably no best way to organize a school because the organization that is effective will be the one which most nearly can achieve the school's philosophy and educational objectives. Therefore the evaluation of the school organization must be directly related to beliefs, values, and goals held for the school's educational program.

Questions similar to the following may be used by the staff as a guide in evaluating their school's organization:

- To what degree is the organization compatible with—
  - beliefs about children?
  - understandings of how children learn?
  - educational objectives?
  - values held for a democratic society?
- To what degree does the organization achieve the purposes as stated in the school's philosophy?
- Are there changes that might more effectively achieve the educational objectives now held?

Organizing for Curriculum And Instructional Improvement

A teacher's guide, such as this one, which presents a statewide framework for the elementary school curriculum, gives teachers only general guidelines on what to teach, supported by a philosophical base and educational objectives. It does not attempt to give teachers daily guidance on the scope of their instruction nor many specific "how-to-do-it" ideas. This is all that can be provided effectively from the state level. It then becomes the responsibility of educational leaders at the local and county levels to develop teaching materials which *supplement and complement the state curriculum framework presented in this Guide.*

The purpose of curriculum work at local and/or county levels should be to give teachers security, understandings, and knowledge so they, in turn, may better implement the state's elementary curriculum. The major task in accomplishing this purpose will be the development of a scope within each level and subject area in terms of specific objectives expressed in terms of pupil understandings, attitudes, appreciations, skills, habits, values, and behaviors. These objectives should be derived from the major goals of education as indicated in the Philosophy of Education for Oregon Schools section of this Guide and similar widely accepted statements, and from the needs of children of each maturity level as related to these general objectives.

Objectives of the local instructional program will thus become more and more specific, precise, and detailed as they approach the actual instructional and learning level within the classroom and the learning group, and will progressively indicate the scope of the program for any selected group of children in any area of the curriculum. When a comprehensive multiple list of truly specific objectives① of instruction exists for levels of learning by grade and subject, the selection of instructional materials (subject matter) and instructional procedures becomes easy and obvious.②

Further implementation of the state curriculum framework may require a variety of activities such as the development of resource units; teaching units; instructional ideas for the classroom; criteria for evaluating instructional practices and materials and the child's progress; and development of skills in utilizing new teaching techniques. Implementation of the state curriculum framework might also include the development of criteria, compatible with the state guide, for evaluating textbooks and national teaching programs so that the best possible selections will be made.

Another area needing implementation is at the administrative level and has to do with the development of policies regarding the purchase and use of textbooks, supplementary materials, and instructional supplies and equipment.

CURRICULUM IMPROVEMENT

There will be no one pattern for implementation of the state curriculum framework because of varying local situations. The community itself influences somewhat the direction of the curriculum program. Children also come to school with varied backgrounds and experiences, determined by the environment of the community and the family. In addition to these environmental influences, the needs of the professional staff, resulting from the experiences and educational training of its members, also influence the curriculum. Curriculum study programs should begin with an assessment of the needs of children and the competencies and interests of the staff if real value is to be realized from the work.

The decision as to the degree of involvement of lay people within a school community rests with its administrators, instructional staff, and board. Time and experience has shown that the role of lay citizens is usually that of developing the school's philosophy and broad educational objectives cooperatively with the professional staff. What to teach and the methods of instruction or the "how-to-teach" are rightfully the prerogatives of the professionally educated staff and should be retained by them.

Curriculum work is considered the responsibility of the district as a whole and usually serves to bring

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① See *Homemaking Education in Oregon Secondary Schools, 1965*, published by the Department of Education, Salem, Oregon, for a comprehensive example of scope development through statement of specific objectives.

② Local curriculum activities are sometimes wasteful and nonproductive. For instance, mere duplication of the framework of the state Guide accomplishes little by itself and distribution of commercial scope and sequence charts does not appear to be a worthy project for local efforts unless there is complete incongruity between the educational philosophy and objectives of the district and those of the state.

unity and coordination among the various district schools.

INSTRUCTIONAL IMPROVEMENT

Improvement of instructional practices is usually delegated to the staff and administrator of each building. However, there may be times when instructional improvement is approached at the total district level. This would be especially true if a wholly new curriculum were being initiated, such as a contemporary mathematics program. When such a situation occurs, changes in instructional practices and techniques are frequently demanded. The success of the new curriculum is often directly dependent upon the teacher's knowledge of and skill in using practices and techniques compatible with curriculum goals.

When curricular changes demand major innovations in instructional practices, the district has an obligation to recognize the need for in-service education. This may be done through district-wide in-service on released time or attendance at workshops and summer sessions. Keys to successful curricular changes are (1) administrative leadership; (2) cooperative staff decision to adopt the program; (3) staff commitment to the program; and (4) sufficient in-service to assure all staff members an understanding of the program and acquisition of the skills necessary to implement it.

Changes in instructional practices will occur without curriculum changes when the leadership fosters this kind of professional growth. Sometimes changes will result from staff-study programs based on educational literature and/or educational research findings. Other changes may come from a desire to test assumptions.

Change in instructional practices will occur at an uneven pace and on a broken front. Adoption of new instructional practices is dependent upon individuals. Individuals differ in creativeness, interest, insights, understanding, and motivation. Leaders at building and district level also have the responsibility of creating a climate conducive to innovation and of providing teachers with security during the period of trying new ideas. Teachers have a right to opportunities to learn without censor while trying new ideas. In such situations, the leader needs to give support and guidance to the teacher in evaluating the experiences and in redesigning future experiences so as to retest, modify, or replace the idea.

Curriculum designing and improvement of instruction call for compatible, cooperative teamwork on the part of teachers, principals, supervisors, and superintendents.

EVALUATION①

Evaluation of the curriculum and instructional practices should be a continuing process. No staff can afford not to seek improvement of its educational offerings and classroom practices. Questions such as the following may guide its evaluation efforts:

Curriculum Program

- To what degree does the curriculum reflect the school's philosophy and objectives? The values held by the community and school?
- Does the curriculum provide a sequence of learnings in the curricular areas?
- Is there balance in the curriculum for the development of skills, concepts, and habits? Attitudes, appreciations, and values?
- What opportunities are present for continuous learning?
- To what degree does the curriculum make sufficient provision for the needs of all children?
- What opportunities exist for integration of learnings?
- To what degree does the school's organization facilitate the goals of the curriculum?
- How do the district's policies aid the achievement of its curricular goals?

Instructional Program

- To what degree do the instructional procedures reflect the school's philosophy and objectives? The values held by the community and school?
- To what degree do the instructional practices implement the curriculum?
- How do the instructional practices capitalize on and extend individual differences?
- Do the school's policies relating to the planning of instruction encourage long-range planning of forward looking practices?
- How do the instructional practices further the development of skills, concepts, appreciations, values, desirable habits, and attitudes?

Organizing for Classroom Instruction

CREATING THE TEACHING-LEARNING CLIMATE

> **If he is indeed wise he does not bid you enter the house of his wisdom, but rather leads you to the threshold of your own mind.②**

Creating a climate which stimulates children to inquire, to think, to grow, to know, to reach out; creating a climate in which children perceive that thinking, learning, knowing are prized—*this is the teacher's task.*

In this kind of classroom, *the child* has the opportunity to perceive that he—

is accepted for what he is.
has opportunities to achieve success.
can communicate with others.
can communicate with the teacher.
is developing self-direction.
belongs to the group.
can learn to make choices and decisions.
has a responsibility as an individual, and therefore must assume certain obligations.

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① Also see ***Evaluating Educational Change, A Guide for Oregon Schools***, **Department of Education, Salem, Oregon, 1963.**

② **Kahlil Gilbran, *The Prophet*, Alfred A. Knopf, New York, 1960, p. 62.**

In this kind of classroom, *the teacher* perceives the classroom as the child's laboratory for learning by—

planning space for independent group activities and individual as well as for shared work.
keeping the room attractive.
choosing facilities and furnishings which—
    permit flexible use.
    encourage interaction.
    promote a variety of ways to learn.①
establishing centers of interest which stimulate and aid learning.
encouraging children to use a wide range of resources.
guiding experiences so that there will be a variety of ways for children to learn and a variety of learnings.
using grouping as a means to attain established purposes.
developing a variety of techniques appropriate to—
    use with various groups.
    aiding children to successfully reach their goals.
encouraging creative solutions to problems.

ACHIEVING BALANCE

Within the classroom the teacher should offer children a "learning day" that has balance between or among—

development of skills, concepts, and appreciations.
physical and mental activities.
independent and group activities.
private and shared activities.
creative experiences and routine, formal, and informational type experiences.
following directions and making decisions.

Like other aspects of the teaching-learning process, if individuals are really considered, balance in the "learning day" will not mean the same thing for all children. The teacher and the children will have a general plan for the day, but because of needs, interests, and goals there will, of necessity, need to be exceptions.

There is a dearth of research and information as to the amount of time which should be allocated to each of the curricular areas during a day or week. Block scheduling for the language arts is recommended as is correlation between the language arts and the social studies. The chart giving suggested percentages of time for the curricular areas listed in Part IV, p. 111, will be helpful to teachers and principals as they evaluate balance in the planned program.

GROUPING

How the child perceives himself as a person and as a member of the school community depends, in a large measure, upon grouping practices. Any grouping which causes a child to perceive himself as less worthy has little if any justification.

Grouping in the classroom must always be closely related to the purpose or purposes of the child. A variety of grouping practices should be used. The composition of the group, size of the group, and length of time the group remains as a working unit is directly related to the purpose and the immediate task. Flexibility is a key word to remember when grouping.

There is considerable research available on grouping and groups which would be helpful to the teacher in the study of this aspect of the teaching-learning process.

EVALUATION

The following questions need to be asked regularly by the teacher in order to determine the effectiveness of the classroom organization for instruction:

- Are children developing positive self-concepts?
- Are children developing self-direction?
- Is the classroom a learning laboratory for the child?
- Is each child being challenged?
- How does grouping achieve the children's purposes?
- As the teacher, am I using a variety of techniques? What are they?
- What new technique have I used this year? How successful was it?
- Is creativity prized and encouraged?
- Has balance in the child's day been achieved? What evidences of balance are there? What areas need further consideration to achieve balance?

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① Adapted from Association for Supervision and Curriculum Development, *Individualizing Instruction*, 1964 Yearbook, The Association, Washington, D. C., 1964, pp. 105-106.

PART II

Curricular Areas

Language Arts

Language arts is more than a series of skills—more than reading, writing, listening, speaking; more than spelling, grammar, handwriting. It is the ability to communicate our innermost thoughts to others. It is the essence of our "humanness"—it is what sets us apart from all other animal life. It is not only communication with those around us but with those of the historical past and with those yet to be born.

The complex language arts skills may be separated for understanding and learning but are so closely related to each other that sometimes they cannot be isolated. They are dependent one upon the other; they supplement and complement each other; each gives purpose and meaning to the other. More than this, they are the very foundation of all learning in our culture. Without a means of communicating, other curriculum areas such as social studies and science would have no way of being developed. For this reason, the language arts skills often draw on content from other curriculum areas for substance and purpose as well as from its own content.

The content of language arts is found in the past and present literature of the world. Language arts content also comes from the story of language and the sounds, history, and meaning of words.

The following concepts about language have been proposed for elementary school children:

1. Language is a system of sounds.
2. The sounds convey meaning only when put together in patterns of words and sentences.
3. The patterns of sound convey meaning to the initiated—those who know the language.
4. Pitch, stress, and juncture are a part of the sound system of the language and help to convey meaning.
5. The sounds and their connection with the things they represent are purely arbitrary.
6. The sounds are put together in characteristic designs; these designs can be composed of a great variety of appropriate fillers.
7. A language changes; old words may be given new meanings and new uses.
8. Likewise, old words are dropped and new words are coined of old parts to represent new meanings or modifications of old ones.①

Teachers will find learning opportunities in many curricular areas for children to develop these concepts about language. It is believed by many that linguistics has contributions to make to reading, spelling, and the development of clear sentence structure.

In this Guide, specific language art skills have not been allocated to particular grades. It is believed that all skills have their beginnings during the first years of educational experience and that, because children progress at different rates, there will be an unevenness in their achievement levels of competency. Thus it becomes each teacher's responsibility to assess the progress of individuals and to plan the teaching-learning experience so as to capitalize on each child's tempo. Each child needs to be challenged sufficiently without ever feeling complete defeat. Therefore, in every classroom throughout the elementary school, there will be children at varying places in the development of language arts skills.

Further, each skill possesses expanding potentials. Although a child may have proficiency in outlining easy reading material, there is no guarantee that he can outline very difficult reading material. Each teacher, then, has the responsibility and privilege of helping children expand their abilities in the skills already learned at an easier reading level.

In addition to teaching skills and guiding the expanding development of skills, teachers also must provide sufficient experiences for children to practice them in meaningful situations. There must be a variety of worthwhile activities so children can maintain proficiency in skills once they are learned.

Scope

The language arts program should be built around the general broad objectives of the language arts and the objectives of each area: listening, speaking, reading, and writing. These objectives constitute the scope of the language arts and are:

- To communicate more effectively and creatively
- To develop ability in the use of all communication skills
- To think more clearly
- To appreciate and understand all aspects of communication

The scope of the language arts areas may be stated as:

Listening

To listen
  to learn
  to discriminate
  to appreciate
  to enjoy

Speaking

To express
  clearly
  effectively
  accurately
  creatively
  aesthetically

Reading

To develop
  a desire to read
  a lifelong interest in reading

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① Ruth G. Strickland, "The Contribution of Structural Linguistics to the Teaching of Reading, Writing, and Grammar in the Elementary School," *Bulletin of the School of Education,* Indiana University, Vol. 40, No. 1 (January 1964), pp. 7-8.

To read
  understandingly
  purposefully
  appreciatively
  critically
  accurately

Writing

To write
  legibly
  clearly
  accurately
  effectively
  creatively
  aesthetically

Sequence of Learning

Children have their first experiences in learning the skills of communication in the home and usually have acquired some degree of competency in listening and speaking before coming to school. Some children may also have developed initial skills in reading and writing.

The teacher's task is to know where each child is, remembering that the normal sequence of learning the communication skills is

  listening
  speaking
  reading
  writing.

Children acquire meanings for the abstract symbols of reading after they understand words and use them to communicate. Children must have ideas to communicate before they have a need to write. Some facility with the mechanics of handwriting and spelling makes written communication easier.

Children are likely to reveal their innermost thoughts and feelings through what they say and write if there is an accepting environment. Teachers would do well to create this type of learning environment.

Listening

Listening is the communication skill by which the listener interprets all sounds, including word symbols in relation to his personal experiences. Listening is more than hearing sounds; a mental process must occur. Thoughtful reaction following the hearing of sounds is necessary for listening to be complete. The task of the elementary school is to guide children in the development of good habits and attitudes so that they will learn the skill of listening.

SKILLS

The skills of listening are

  comprehension
  retention
  organization
  critical evaluation.

These skills of listening are so nearly like those of reading that for the development of each the teacher should refer to the section on reading.

ACTIVITIES

Children come to school with a wide range of abilities in the listening skill. The teacher's responsibility is to diagnose each child's listening ability and to plan the kinds of experiences which will meet his need.

There are various types of listening growing out of one's interest and motive for listening. These have been categorized by some writers as attentive, appreciative, creative, and passive.

Listening should not be a separate curricular area but should be included in all the learnings of the child's day. Language arts experiences are rich in opportunities for development of the listening skill. Through purposeful, planned experiences, children can develop competency in listening skills as they participate in many language activities. The list which follows is not meant to be complete but to be illustrative of the range of listening activities.

TYPES OF LISTENING ACTIVITIES

Attentive	Appreciative	Creative	Passive
Announcements	Poetry	Reconstructing concepts, generalizations, literary, dance, music, and/or art forms	Multiple stimuli
Directions	Prose	from	Tuning in and out of sounds and symbols
Information	Dramatizations	spoken language, melody, rhythm, sounds; e.g., from birds, street.	Selecting and discriminating intermittently.
Explanations	Music—rhythm, melody, harmony		
Conversations			
Discussions			
Introductions			
Programs			
Recordings—tapes, records			
Story telling			

Speaking

Because children will have had various experiences, their abilities to speak will have a wide range. To discover each child's ability, the teacher needs to create an environment in which the child perceives that he is free to speak and that what he says will be accepted. An informal arrangement of furniture does much to create such a free, accepting environment. The teacher cannot discover children's speech needs unless they talk.

Not only speaking competencies but the child's concept of self; his adjustment to school, home, and the world in general; and his attitudes and prejudices can be diagnosed through his speaking.

OUTCOMES

A colorful, enriched vocabulary and correct use of words in oral expression
  Understanding of
    structural analysis
    history of words
  Joy in the use and appreciation of
    right words
    picture words
    strong verbs and nouns
    picturesque speech

A feeling for complete sentences and ability to express one's self well when communicating orally
- Understanding of sentence structure
- Appreciation for sentence and style acceptable to the situation

Ability to organize ideas for oral presentation
- Outlining
- Summarizing
- Synthesizing

Ability to express one's self clearly and accurately in all types of situations using oral expression
- Understanding of the format suitable to the situation
- Creativeness

Voice skills for oral expression
- Pronunciation
- Phrasing
- Intonation
- Cadence
- Stress
- Varying voice to indicate change of meaning

ACTIVITIES

A great variety of activities around which teachers and children can plan experiences are available for developing speaking skills. Special classes for speaking are not necessary. Speaking activities should permeate all curricular areas. Children have the right to grow in their competency to express themselves orally every year through rich, varied, and increasingly more complex and mature situations.

The list of activities which follows illustrates types of speaking activities as well as the breadth of such activities suitable for elementary school children.

TYPES OF SPEAKING ACTIVITIES

One-to-One	**Reporting to a Group**	**Interaction in Groups**	**Creative**
Conversation	Reports	Discussions	Choral readings
Telephoning	Information	Panels	Dramatizations
Greeting caller	Book	Debates	Creative dramatizations
Introduction	Trip	Symposiums	Role playing
Interview	Reviews	Club-type meetings	Broadcasts—real or imaginary
	Book	Committees	
	Movie		
	Television		
	Story Telling		
	Stories		
	Jokes		
	Anecdotes		
	Fables		
	Reading		
	Prose		
	Poetry		
	Speaking		
	Prepared		
	Extemporaneous		
	Explanatory		
	Descriptive		
	Announcement		
	Broadcast		
	Directive		

The language arts program should offer children many opportunities each year to increase their competencies in each type of speaking activity.

TEACHING LANGUAGE

One of the purposes of the elementary school is to help children acquire an acceptable pattern of speech. The functional approach has been an effective one to use with this age child. In the functional approach the focus is on the learning of acceptable patterns of speech through imitation and observation as the need arises in the daily work of the child.

Children come to school with learned patterns of speech which the linguist calls a dialect. Teachers need to accept the child's dialect and to help him develop patterns which are acceptable in other social and working situations.

There are cultural levels of speech, and the child needs to know and practice patterns suitable for a variety of life's experiences. The linguist distinguishes between a standard speech pattern which is socially acceptable and the nonstandard pattern which includes the substandard, both of which are not socially acceptable. In addition, there are functional speech patterns, based on the degree of expressed familiarity, ranging from formal and semiformal to the informal. According to the linguist there is no "correct" way of speaking but rather socially acceptable patterns. Thus, social acceptability of speech and the ability to express oneself meaningfully should be the criteria for evaluating speech patterns.

There is no evidence that formal grammar, the approach based on the rules and logical order of the Latin grammar, "correctness," and authority helps the elementary school child to improve his speech style. Grammar is abstract and has little meaning for young children. When the seventh- or eighth-grade child evidences an interest in the formalism of grammar, he should be introduced to it. The child's interest should be considered, however, and the teacher should introduce formal grammar with full recognition that it may not improve either the child's speaking or writing.

A functional approach to the teaching of grammar is recommended for elementary school children.

Reading

> Reading is not just a skill but rather a resource for fuller living. That concept changes the emphasis in the teaching of reading from mechanics to meaning, from the acquisition of mechanical skill to the development of ability to gain meaning from symbols and to think with it, interpret it, and use it for personal and social ends. The quality of an individual's reading is not determined by the degree of mechanical skill he has attained but by the quality of personal satisfaction and enrichment that he finds in the experience of reading.
>
> Since this is true, learning to read is not a task for the primary grades, nor even for the elementary school, alone. It is really a lifetime task. . . . All individuals who are real readers continue to learn to read as long as they live and continue to read. They expand and deepen their vocabulary of words and meanings and polish and refine their skill through continuous experience with reading.①

With this understanding of reading, the development of a desire to read, an inquiring wholesome attitude toward reading, and an appreciation of literature is equally, if not more, important than the acquisition of reading skills. Thus the task of learn-

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① Ruth G. Strickland, *The Language Arts in the Elementary School*, 2nd Edition, D. C. Heath and Co., Boston, 1957, p. 243.

ing to read becomes much broader and more complex than the recognition and pronunciation of symbols. All that the teacher does in teaching-learning experiences should encompass these comprehensive goals. Appreciation of literature should not be confused with the teaching of skills. Elementary school children should develop competency in reading skills but not at the expense of other goals for reading.

SKILLS

Many aspects of the eight reading skills have their beginnings in the first year of reading instruction. All aspects of the eight reading skills, as categorized in this Guide, need to be emphasized each year. These skills are

- word attack skills
- comprehension skills
- retention skills
- evaluating skills
- organizing skills
- information location skills
- silent reading rates
- oral reading skills.

Every child should show yearly progress in the development of these skills. He should be more accurate, more rapid, more discriminating in their use, and able to apply them in a wider range of situations with increasingly more difficult reading material.

Children in any classroom will naturally evidence an ever widening range of competency in these skills. Each child will also display differences in competency for the various aspects of the reading skills. The teacher should encourage rather than strive to eliminate these differences. A reading program of high quality will be recognized by its wide variations in achievement.

Word Attack Skills

Independence is the goal in the development of word attack skills. All children may not achieve complete independence, but each year should find them nearer this goal. There is considerable evidence to support the practice of beginning instruction in this skill with sight words and moving into phonics by beginning with the sounds of the consonants, followed by the vowel sounds, and then into structural analysis and the dictionary skills.

ASPECTS OF WORD ATTACK SKILLS

Sight Words

Pictures
Configurations
Context clues
Rhyming words

Context Clues (an aspect of sight words)

Experiences
Synonyms
Multiple meanings of familiar words
Antonyms
Analogies
Definitions
Summaries
Punctuation marks
Reflections of a mood or situation
Multiple meanings of unfamilar words

In the teaching of phonics the sequence should be from *auditory* to *verbal* to *visual.*

Phonics

CONSONANTS

Initial consonant sounds
Ending consonants
Rhyming words
Ending consonant substitutions
Consonants that have more than one sound
Consonant blends
Beginning consonant digraphs
Double consonants
Silent consonants
Three-letter consonant blends
Inflectional changes: *d* to *t*, adding *n*, changing *f* to *v* to add *es*

VOWELS

Vowel perception
Short vowels
Vowels have more than one sound
Long vowels with final *e*
Double vowels
Vowel plus *r*
Vowel digraphs
Vowel diphthongs
Vowels have many sounds
Rules for vowel sounds

Structural Analysis

Add *s, ed, ing*
Root words, prefixes, suffixes, and compound words
Hyphenated words
Contractions
Inflected forms by doubling final consonant
Changing *y* to *i* and adding *es*
Perception of syllables
Prefixes
Suffixes
Understanding homonyms
Understanding heteronyms and homographs
Understanding syllabication

Dictionary Skills

Know the alphabet
Recognize letters of alphabet
Follow alphabetical sequence
Understand relationship of letters of alphabet
Arrange words alphabetically by first, second, third and fourth letters
Use of alphabetical arrangement
Know dictionary format
Understand guide words
Locate words in dictionary by using guide words
Understanding schwa symbol
Use base word to locate given word
Understand syllabication
Use phonetic pronunciation
Use accent marks
Recognize slant line and hyphen as pronunciation aids
Interpret diacritical markings
Find appropriate meanings

Use all information in dictionary
Use dictionary independently for learning about new words

Comprehension Skills

Answer simple, factual questions
Find details
Follow directions
Anticipate action
Find sequence of story
Classify
Recognize main idea of story
Anticipate plot
Visualize events
Draw conclusions
Locate specific information
Follow complex directions
Utilize punctuation clues
Recognize main idea of paragraph
Develop insights into behavior, attitudes, and feelings of characters
Compare and contrast
Interpret figures of speech
Find details to support main ideas
Solve problems
Form generalizations
Understand idiomatic expressions
Understand relationships: time, space, cause and effect
Interpret maps, charts, graphs, diagrams, and schedules
Predict outcomes
Identify elements of style

Retention Skills

Comprehension must precede retention; the child must comprehend what he has read if he is to have something to retain. The number of times children will need to reread a selection to have something to retain will depend on previous knowledge of the content, their interest, and the purpose and the difficulty of the materials. The following steps might help children develop retention skills. Frequent opportunities for recall are also necessary if retention of information is to have any degree of permanency.

STEPS IN DEVELOPING RETENTION SKILLS

Decide which ideas to remember.
Formulate questions to help in remembering ideas.
Restate ideas in own words.
Make notes on materials read.
Make outlines on materials read.
Make a summary of materials read.

Evaluating Skills

Evaluating as a reading skill implies reading critically and may be thought of as an extention or refinement of the *comprehension* skill. Evaluating is a skill which must have its beginning, like all other reading skills, early in the child's reading experience, but one which requires maturity along with rich and varied personal experiences to achieve competency. Further, *evaluating* implies that the reader is reading "beyond the material." To do this the reader uses his previous experiences and knowledge.

ASPECTS OF EVALUATING SKILLS

Distinguish between fact and fancy.
Select pertinent ideas.
Distinguish between fact and opinion.
Determine relevancy to concepts.
Weigh evidence.
Determine adequacy of presentation.
Determine accuracy.
Discover insights into author's purpose.
Determine degree of freedom from prejudice.
Determine reasons for varying conclusions on controversial issues.

Organizing Skills

The organizing skills include outlining, summarizing, and synthesizing. Outlining and summarizing will probably develop concurrently; but synthesizing, because it is dependent on both outline and summarizing, had best be delayed until the child has attained some skill in the first two.

Outlining

Sequence of events
Main idea of story
Main idea of paragraph
Supporting details
Topic sentences
One-step outlines
Two-step outlines
Three-step outlines
Using several sources of materials
Selecting and relating material to main points of outline
Utilizing outlines in sharing ideas
Making outlines for oral reports and written work

Summarizing

Classifying ideas
Restating a sentence
Recognizing a summary
Restating a paragraph
Recognizing summary sections of chapter
Restating an entire article or story

Synthesizing

Synthesizing makes use of either outlining or summarizing. In teaching children to synthesize it would seem best to begin with two sources and to progress to three, four, and an indefinite number of sources as children develop competency.

Locating Information Skills

During the elementary school years a child should develop an understanding of the resources to use for obtaining needed information and skill in using each of the various resources. There is no particular sequence for development of skills in using resources for locating information, but the book is usually the first resource with which children will become familiar.

The following list represents the resources which elementary children should be able to use.

Books

- Titles
- Table of Contents
- List of Maps
- Illustrations
- Tables
- Graphs
- Side heads
- Running heads
- Chapter, sectional, and topical headings

Reference Materials and Library Aids

- Dictionaries, abridged and unabridged
- Encyclopedia, all types and their indexes
- Card catalogues
- Biographical dictionaries
- Current periodicals
- Back issues of periodicals
- Abridged Reader's Guide
- Newspapers
- Indexes; e.g., plays, short stories, fairy tales
- Quotation books
- Thesaurus

Silent Reading Rates

Every child needs to develop a variety of silent reading rates and to know the appropriate situations in which to use them. The silent reading rates might be categorized as follows:

- Intensive reading
- Rapid reading
- Skimming
- Varied reading rate depending on purpose for reading and type of material

Intensive reading is a slow, deliberate, almost word by word or phrase by phrase, type of reading. This type of reading is generally used by the young learner but is not replaced, nor should it be, when the child develops a rapid reading rate. It is a reading rate likely to be used by more mature readers when reading unfamiliar or highly technical material. All children will not attain the same facility in rapid reading because of individual differences.

The reading program should provide opportunities for children to develop competency in the four types of silent reading using increasingly more difficult and varied styles of written materials and should especially emphasize the adjustment of the reading rate to the purpose and difficulty of the reading material.

Oral Reading

Oral reading is primarily an audience situation in which the reader's purpose is to interpret the material so that the listener will think with the author and reader. In oral reading two or more people are involved, all of whom are listening, including the reader. Oral reading requires reader preparation; therefore, silent reading should precede ALL oral reading for an audience situation.

Occasionally, oral reading may be used for diagnostic purposes. In such instances the teacher alone, not other children, becomes the listener. When oral reading is used for this purpose, sight reading may take place; that is, oral reading without silent reading preparation.

Often oral reading is a recreational-type activity which offers children opportunities to share passages of beauty, humor, and description. Poetry lends itself to reading aloud.

There may also be times when children read aloud briefly to prove a point by quoting verbatim, to clarify a concept, to analyze a passage, or to share a written report or announcement. In all these practical oral reading situations, listening is still a necessary requirement.

Oral reading may be divided into three types: recreational, practical, and diagnostic. Recreational oral reading is the sharing of prose and poetry that children do with individuals and various size groups. Practical oral reading occurs when children read passages orally for a particular purpose; e.g., to find or prove a point, to show supporting evidence, to describe. Diagnostic oral reading is a method a teacher uses to determine a child's word attack difficulties. The teacher listens and records types of errors as the individual child sight reads a specific passage to her.

The important ingredients in any oral reading situation is the *reader* and an *audience* of one or more. Oral reading is more difficult than silent reading because the eye and the mind must be ahead of the voice if the material is to be read accurately and if it is to be well interpreted for the listener. *Oral reading is not word calling.*

The oral reading rate will depend upon the material and purpose. It will vary even within a given selection since variation in the reading rate is a means for developing mood, meaning, and emphasis.

There are two types of skills found in oral reading. The skills of the first type correspond to some general reading skills while those of the second type have to do with voice factors for effective oral reading.

Oral Reading Skills

- Word recognition
- Punctuation to develop meaning
- Comprehension
- Rate of reading

Voice Skills in Oral Reading

- Pronunciation
- Phrasing
- Intonation
- Cadence
- Stress
- Voice variation to indicate changes of meaning

LITERATURE

Through literature, children broaden their interests, develop an appreciation for and taste in literature, deepen their perceptions and understandings of self, and develop insights into the social milieu of their culture. Every child has the right to be acquainted with this heritage of literature.

A balanced program in literature is a requisite. Jacobs suggests the following kinds of literature to attain balance:

1. **contemporary literature and great stories or classics**
2. **realistic and fanciful literature**
3. **fictional and informational literature**

4. periodicals and books
5. popular materials and distinctively literary reading matter
6. expensive and inexpensive books
7. prose and poetry.①

Children develop a *taste for reading* before they are ready to develop a *taste in literature*. *Taste* develops slowly. It involves critical thinking as well as appreciation. If children are to acquire a *taste* in reading, as well as an interest, they must have access to literature of quality as well as a broad and rich sampling.

A possible pattern of sequential development of taste in reading might be:

Learns to like reading
Reads independently and indiscriminately
Wants to own books
Acquires wide reading interests
Discovers what reading can do for him
Becomes a discriminating, critical, challenging reader.②

It is during the first phase that the interest in poetry may best be developed as a base for future growth. "The sixth phase is attained only by highly mature readers."③

A possible pattern in the development of taste in poetry is:

Strong rhythm and rhyme
Limericks and other fun poems
Narrative poems and ballads
Lyric poetry
Modern, experimental form④

Good literature, both prose and poetry, is for sharing by reading aloud—by adults for the young child, later by the children themselves. This sharing of literature makes use of both listening and oral reading skills.

Too many children have had their joy in reading "nipped in the bud" at an early age by required book reports, imposed memorization of selections, too detailed analyses of literature, and literature beyond their levels of readiness. Self-selection, many opportunities to read and share, coupled with varied creative experiences in sharing will help each child find literature a source of enjoyment which will lead to a lasting interest in reading at more mature levels.

A well-balanced reading program will give children wide and deep opportunities to grow in the accomplishment of all the reading skills as well as to enjoy and appreciate the world's heritage of literature.

Organizing for Reading Instruction

For years teachers have recognized individual differences in children's abilities to learn to read. The approach to the differences in learning has customarily been made by dividing children into three or more groups on the basis of achievement and assigning a basic reading text to each group. The groups then proceed through text after text with a minimum of differences in method and expectations for varying abilities. There are a number of problems inherent in this approach. A few common ones are:

Insufficient knowledge of the differences among groups of children.

Use of same techniques of instruction regardless of ability of the group.

Same pacing for all groups and each individual within the group.

Failure to match reading difficulty of text with ability of the particular group.

Insufficient variety of choices in texts.

Little emphasis upon the interrelatedness of the total language arts learnings.

For a number of years some teachers have been successfully using an individualized approach to reading instruction. This plan permits each child to develop his ability to read in accord with his own developmental pattern and interest. A wide variety of texts and trade books are used. Through teacher observation and diagnosis of children's successes and weaknesses, small groups are formed from time to time to give specific instruction in a particular skill as the needs arise. The groups are flexible and of short duration in this reading approach.

Another approach to reading instruction recognizes the interrelatedness of the language arts skills and attempts to bring them together in the instructional program. The four language arts skills—listening, speaking, reading, and writing—are closely interwoven. The language arts approach begins with the child's ideas which he expresses verbally, in pictures, and in writing. Once the idea is in written symbols, he can read it. The language arts approach to reading also emphasizes the individual. It calls for the same kind of teacher observation and diagnostic techniques to guide the child to full development of his reading potential as does the individualized program.

These two approaches are somewhat alike. The individualized approach may use basic and supplementary texts, while the language arts approach begins with the child's ideas. Within both the individualized and the language arts approach, skills are taught but not within a preconceived sequential structure as in the basic reader approach. Rather, they are developed as a part of the total language experience and are emphasized as an integral part of communication.

Both the individualized and the language arts approach are consistent with the developmental approach to learning; but teachers should have a good understanding of the techniques necessary for their use, administrative policies conducive to their development, and sufficient materials to assure success before changing from the basic textbook approach.

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① Virgil E. Herrick and Leland B. Jacobs, *Children and the Language Arts*, Prentice Hall, Inc., Englewood Cliffs, 1955, p. 195.

② Adapted from Mildred Letton Wittick, "Sequential Development in Reading Interests and Tastes," *Sequential Development of Reading Abilities*, Helen M. Robinson, ed., Supplementary Educational Monographs, No. 90, University of Chicago Press, 1960, pp. 154-155.

③ *Ibid.*, p. 155.

④ *Ibid.*, pp. 155-156.

Written Expression

Few children come to school with the ability to express ideas in writing. Hence, this particular skill is fundamentally the school's responsibility. Written communication is a very complex ability. It demands not only mechanical skills but highly complicated thought processes. To communicate with symbols calls for ideas; the organization of these ideas; and a clear, logical development of the ideas. A good general rule to remember is that if a child is to write well, he must first have something to communicate in writing and should feel that there is a valid reason for writing it.

Factual, informative writing and creative, imaginative writing should not be confused. These two types have different purposes and styles. They also call for different instructional techniques. The elementary school child should have experiences with both types.

OUTCOMES

- A colorful, enriched vocabulary which is used correctly in written expression
  - Understanding of
    - structural analysis
    - history of words
  - Pride in using and appreciation of
    - right words
    - specific words

(Continued—Column 2 above)

    - picture words
    - strong verbs and nouns
    - picturesque speech
- A feeling for complete sentences and ability to recognize and use all types of sentences correctly
  - Knowledge of sentence structure
  - Appreciation for sentence style acceptable to the situation
- Recognition of and ability to write well-organized paragraphs
  - Knowledge of
    - paragraph structure
    - linking paragraphs
  - Appreciation of and desire to write good paragraphs
- Ability to use capitalization and punctuation correctly
  - Knowledge of standards for
    - capitalization
    - punctuation
- Ability to express one's self in all types of writing
  - Knowledge of style acceptable to the situation
  - Skills of
    - handwriting
    - spelling
  - Appreciation of good writing and desire to write well

Children need to have opportunities to develop the skills of written expression through a variety of activities. Many of these activities can be related meaningfully to the other curricular areas.

ACTIVITIES

Friendly Letters

Thank you notes
Invitations
Post cards
Cheer up notes
Congratulations
Acceptances
Regrets
Bread and butter letters
General correspondence

Business Letters

Cards and forms
Order letters
Applications
Inquiries
Complaints

Imaginative Writing

Poetry
Rhymes
Riddles
Limericks
Plays
Jokes
Short stories
Suspense stories
Narratives
Scripts
Stories

Factual Writing

Book reports
Book reviews
Descriptions
Informative articles
Directions
Reports (synthesizing)
Movie reviews
Radio reviews
TV reviews
Interview reports
Themes
Anecdotes
Explanations
Evaluations
Scripts

Information Gathering

Notes
Outlines
Summaries

Record Keeping

Bibliographies
Minutes
Card files
Diaries

News Writing

Advertisements
News
Articles (magazine)
Editorials
Features

ILLUSTRATIONS OF DEVELOPMENTAL QUALITY OF WRITTEN EXPRESSION SKILLS

Three types of written work were evaluated and placed on a scale to show the expanding, developmental quality of samples of written expression of elementary school children. Fifteen criteria were used for evaluative purposes and a sequence of five for each of the three types is given here for illustration. The **criteria** used were:

1. Purpose in writing the entire paper is evident.
2. Ideas are organized to suit the purpose.
3. Progression of ideas is clear and logical.
4. Thought is adequately developed.
5. Topic or purpose of a paragraph is clear.
6. Sentences contribute to the development of the paragraph.
7. Sentences are interesting and varied.
8. Sentences are complete (neither fragments nor run-ons).
9. Sentences have appropriate strengths: conciseness, emphasis, mood, grammatic correctness.
10. Words are exact, appropriate, and vivid.

11. Capitalization follows standard procedure.
12. Punctuation follows standard procedure.
13. Spelling is correct.
14. Handwriting is legible.
15. Appearance of the paper is satisfactory.

EVALUATION OF IMAGINATIVE WRITING

Criteria	Example 1*		Example 2*		Example 3*		Example 4*		Example 5*	
	Plus	Minus	Plus	Minus	Plus	Minus	Plus	Minus	Plus	Minus
1	x		x		x		x		x	
2	x		x		x		x		x	
3	x		x		x		x		x	
4	x			x	x		x		x	
5		x	x		x		x		x	
6	[1]	[1]	x		x		x		x	
7	x			x	x		x		x	
8	x		x		x			x	x	
9	x		x			x	x		x	
10	x		x		x		x		x	
11	x		x		x		x		x	
12	x			x		x		x	x[2]	
13	x			x	x			x	x	
14	x		x		x		x		x	
15		x		x		x	x		x	

Key: *Plus* indicates a high quality of imaginative writing. *Minus*, a low quality of imaginative writing. * refers to corresponding example in the following selections appearing under "Scale for Imaginative Writing."

[1] Does not apply.

[2] Omits commas in compound sentences.

SCALE FOR IMAGINATIVE WRITING

Example 1

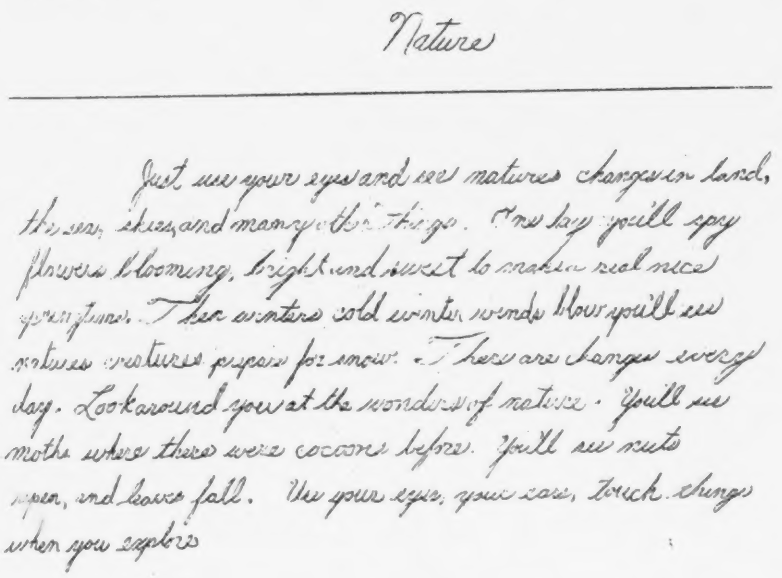
Writing
Jan 24 Richard
The Little Snowflake
One day it snowed
and a very little
snowflake came
down, down, down.
He landed. He
came with a
bump!
Some children
came to play.
They made a
snowman and
he got in
the snowman.
He melted.
He evaporated.
The little snowflake
will be back
when deep snow
comes again.

Example 2

The Rain

When rain hits the window it looks
like little people's heads looking
in at us. When they fall they
look like little fairies sliding
in to a polkadot city.

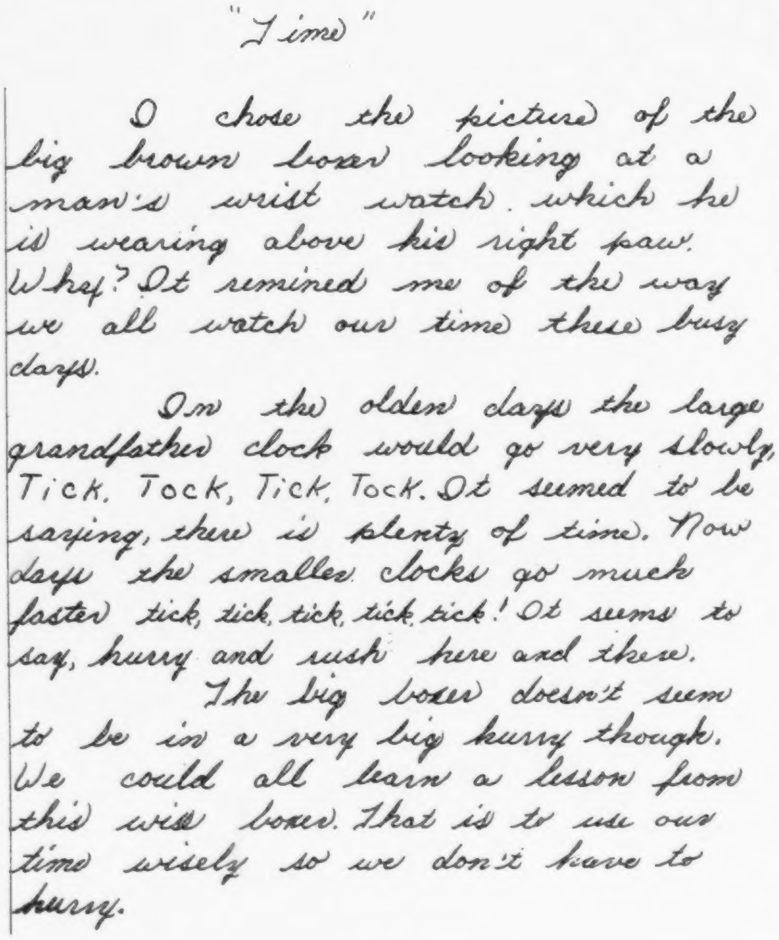
Example 3



Nature

Just use your eyes and see natures changes in land, the sea, skies, and many other things. One day you'll spy flowers blooming, bright and sweet to make a real nice spring time. Then winters cold winter winds blow you'll see natures creatures prepare for snow. There are changes every day. Look around you at the wonders of nature. You'll see moths where there were cocoons before. You'll see nuts open, and leaves fall. Use your eyes, your ears, touch things when you explore

Example 4



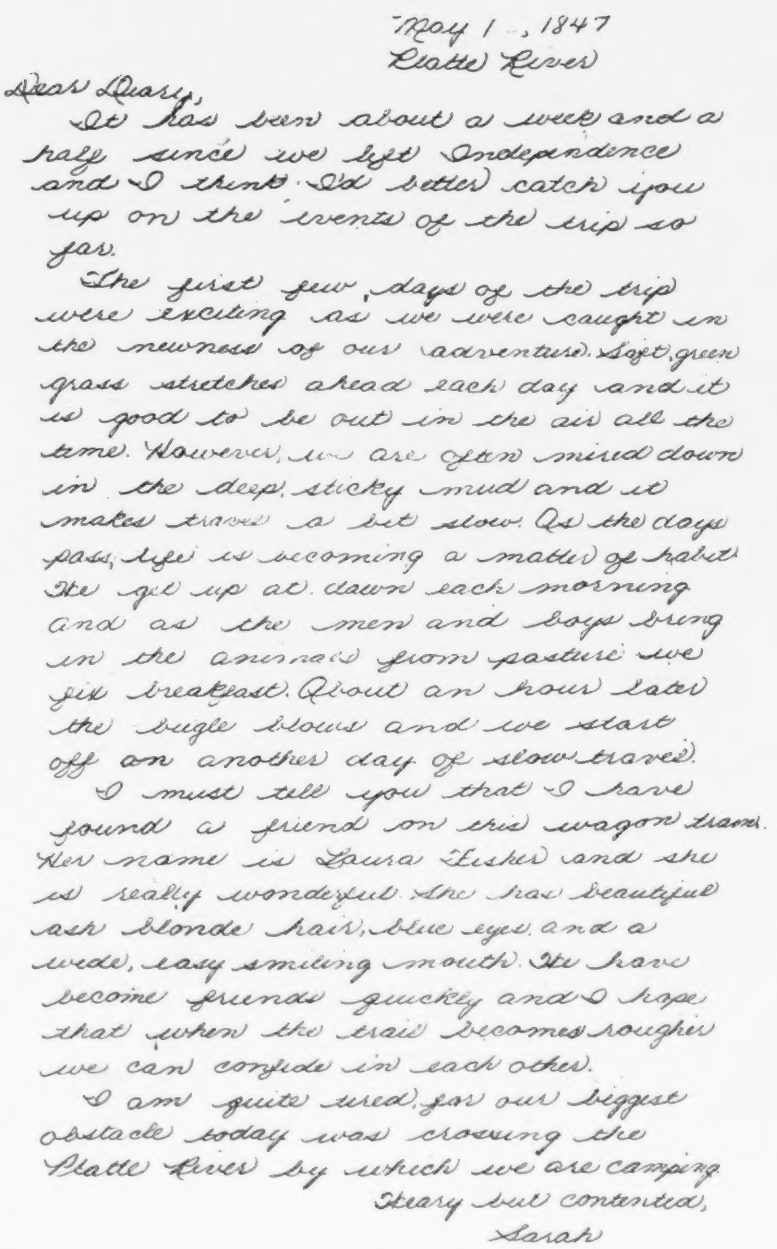
"Time"

I chose the picture of the big brown boxer looking at a man's wrist watch which he is wearing above his right paw. Why? It remined me of the way we all watch our time these busy days.

In the olden days the large grandfather clock would go very slowly, Tick, Tock, Tick, Tock. It seemed to be saying, there is plenty of time. Now days the smaller clocks go much faster tick, tick, tick, tick, tick! It seems to say, hurry and rush here and there.

The big boxer doesn't seem to be in a very big hurry though. We could all learn a lesson from this wise boxer. That is to use our time wisely so we don't have to hurry.

Example 5



May 1 , 1847
Platte River

Dear Diary,

It has been about a week and a half since we left Independence and I think I'd better catch you up on the events of the trip so far.

The first few days of the trip were exciting as we were caught in the newness of our adventure. Soft, green grass stretches ahead each day and it is good to be out in the air all the time. However, we are often mired down in the deep, sticky mud and it makes travel a bit slow. As the days pass, life is becoming a matter of habit. We get up at dawn each morning and as the men and boys bring in the animals from pasture we fix breakfast. About an hour later the bugle blows and we start off on another day of slow travel.

I must tell you that I have found a friend on this wagon train. Her name is Laura Fisher and she is really wonderful. She has beautiful ash blonde hair, blue eyes, and a wide, easy smiling mouth. We have become friends quickly and I hope that when the trail becomes rougher we can confide in each other.

I am quite tired, for our biggest obstacle today was crossing the Platte River by which we are camping.

Weary but contented,
Sarah

Note: Sample 5 is an imaginary diary written by a young girl when crossing the plains to Oregon. The page is smudged because it was in an imaginary fire.

EVALUATION OF EXPLANATIONS

Criteria	Example 1*		Example 2*		Example 3*		Example 4*		Example 5*	
	Plus	Minus	Plus	Minus	Plus	Minus	Plus	Minus	Plus	Minus
1		x		x	x		x		x	
2		x		x	x		x		x	
3		x		x	x		x		x	
4		x		x		x	x		x	
5		x		x	x		x			x[1]
6		x[2]		x		x[3]	x		x	
7	x			x		x		x[4]	x	
8	x		x		x		x		x	
9	x		x		x		x		x	
10	[5]	[5]	[5]	[5]	x		x[6]		x	
11	x			x	x		x		x	
12		x	x		x		x		x	
13	x			x	x			x	x	
14	x		x		x		x		x	
15		x	x		x			x	x	

Key: *Plus* indicates a high quality of explanation. *Minus,* a low quality of explanation. * refers to corresponding example in the following selections under "Scale for Explanations."

[1] Weakness in first and last two paragraphs.

[2] Last sentence not on subject.

[3] Last sentence needs transition.

[4] Repetition of "we" weakness. Shortness causes sentences to be uninteresting.

[5] Difficult to measure.

[6] Symbol (degrees) omitted.

SCALE FOR EXPLANATIONS

Example 1

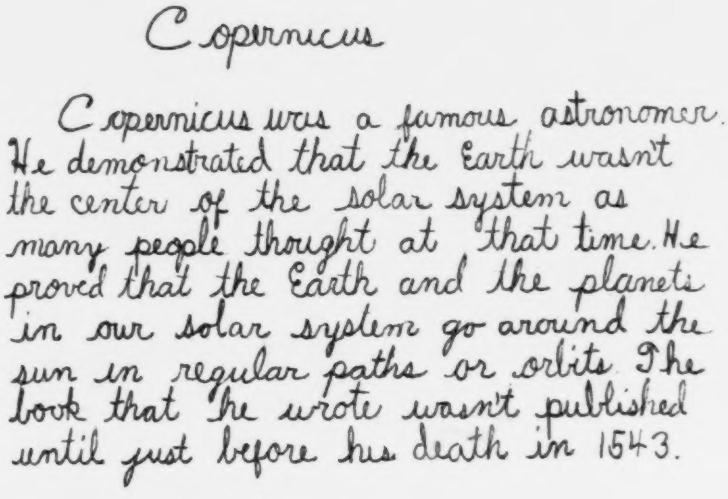
Once I had a dog. He was a Pekinese
One day he ran away. That day we worried
and worried. He never did come back
During the October storm
my Father went out to
shut the garage doors When
he went out, he found a cat.

Example 2

Trees Are Busy in Winter

A few days ago the discovery
of an important tree was announced.
A scientist was examining
an inner twig and found
Chlorophyll cells.
Sunlight can enter these twigs
and Chlorophyll starts working.
Water can enter the twigs
in winter. Roots below the frost-
line take in moisture.
Chlorophyll has been found to
be working in ten degrees below freezing
weather.

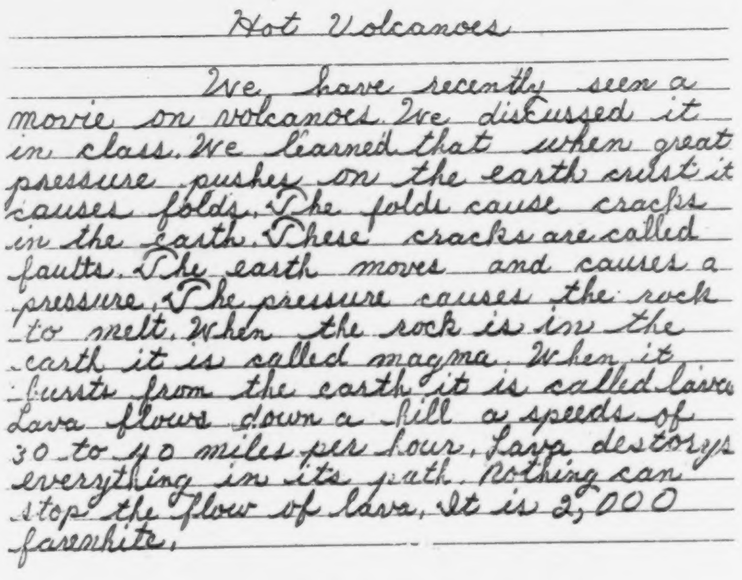
Example 3



Copernicus

Copernicus was a famous astronomer. He demonstrated that the Earth wasn't the center of the solar system as many people thought at that time. He proved that the Earth and the planets in our solar system go around the sun in regular paths or orbits The book that he wrote wasn't published until just before his death in 1543.

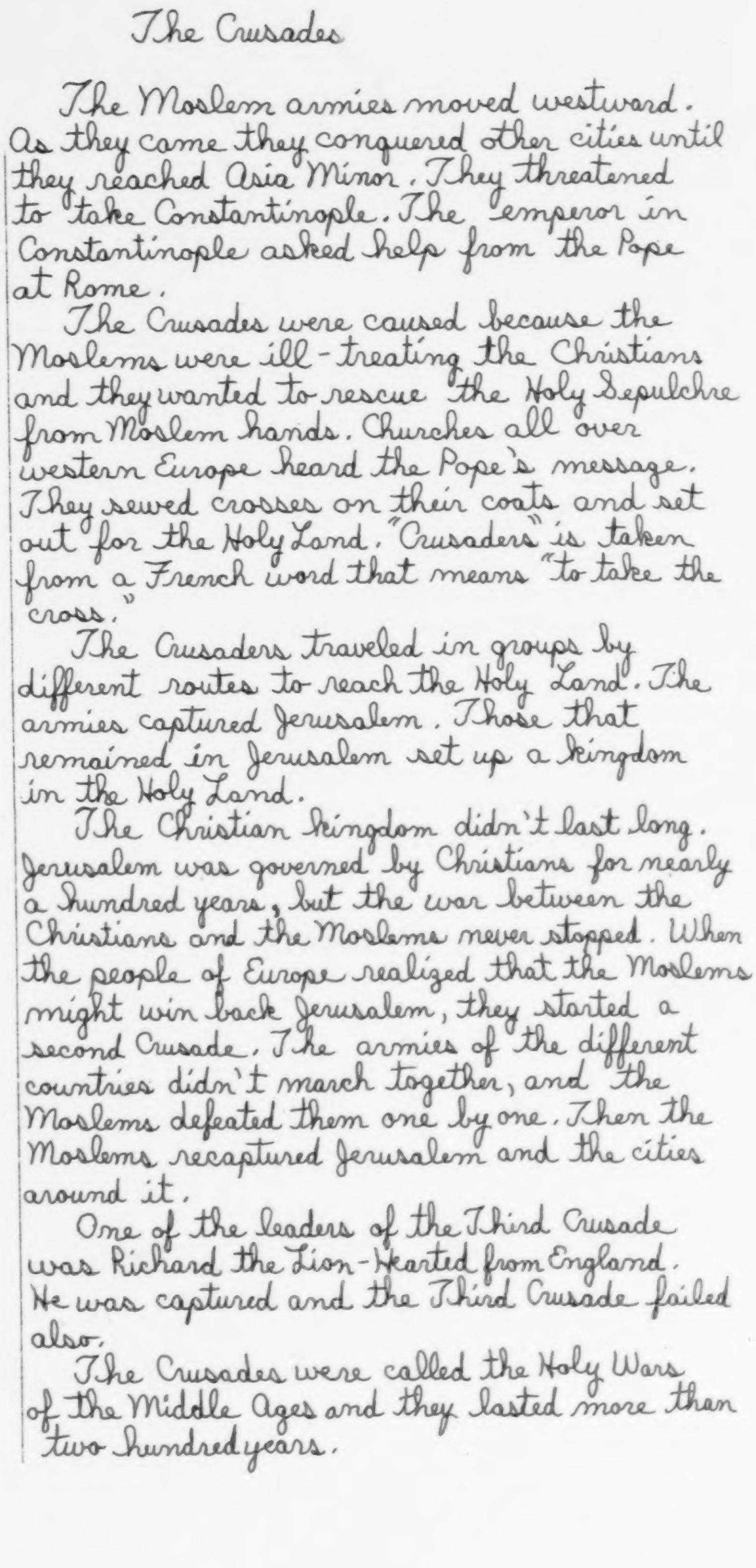
Example 4



Hot Volcanoes

We have recently seen a movie on volcanoes. We diskussed it in class. We learned that when great pressure pushes on the earth crust it causes folds. The folds cause cracks in the earth. These cracks are called faults. The earth moves and causes a pressure. The pressure causes the rock to melt. When the rock is in the earth it is called magma. When it bursts from the earth it is called lava. Lava flows down a hill a speeds of 30 to 40 miles per hour. Lava destorys everything in its path. Nothing can stop the flow of lava. It is 2,000 farenhite.

Example 5



The Crusades

The Moslem armies moved westward. As they came they conquered other cities until they reached Asia Minor. They threatened to take Constantinople. The emperor in Constantinople asked help from the Pope at Rome.

The Crusades were caused because the Moslems were ill-treating the Christians and they wanted to rescue the Holy Sepulchre from Moslem hands. Churches all over western Europe heard the Pope's message. They sewed crosses on their coats and set out for the Holy Land. "Crusaders" is taken from a French word that means "to take the cross."

The Crusaders traveled in groups by different routes to reach the Holy Land. The armies captured Jerusalem. Those that remained in Jerusalem set up a kingdom in the Holy Land.

The Christian kingdom didn't last long. Jerusalem was governed by Christians for nearly a hundred years, but the war between the Christians and the Moslems never stopped. When the people of Europe realized that the Moslems might win back Jerusalem, they started a second Crusade. The armies of the different countries didn't march together, and the Moslems defeated them one by one. Then the Moslems recaptured Jerusalem and the cities around it.

One of the leaders of the Third Crusade was Richard the Lion-Hearted from England. He was captured and the Third Crusade failed also.

The Crusades were called the Holy Wars of the Middle Ages and they lasted more than two hundred years.

EVALUATION OF BUSINESS LETTERS

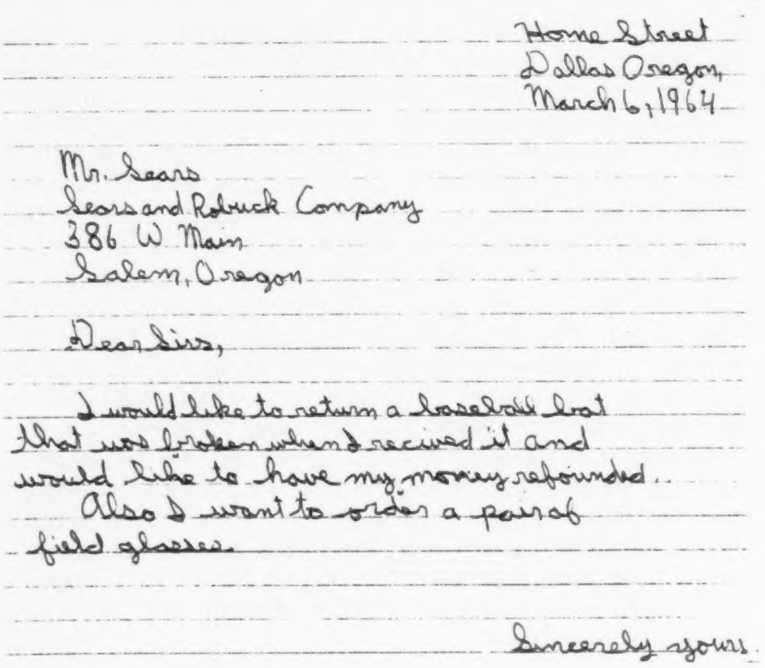
Criteria	Example 1*		Example 2*		Example 3*		Example 4*		Example 5*	
	Plus	Minus	Plus	Minus	Plus	Minus	Plus	Minus	Plus	Minus
1	x		x		x		x		x	
2		x		x	x		x		x	
3		x		x	x		x		x	
4		x		x	x		x			x[1]
5	x			x	x		x		x	
6	x			x	x		x		x	
7	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]
8	x		x		x		x		x	
9		x		x	x		x		x	
10		x[3]		x	x		x		x	
11	x		x		x		x		x	
12		x		x[4]	x		x			x[5]
13		x		x	x			x[6]	x	
14	x		x		x		x		x	
15		x		x		x[7].	x		x	

Key: *Plus* indicates a high quality of business letter. *Minus,* a low quality of business letter. * refers to corresponding example in the following selections under "Scale for Business Letters."

[1] Certificate not mentioned.
[2] Does not apply.
[3] Signature incomplete.
[4] One comma omitted.
[5] One comma added.
[6] Letter omitted in first word.
[7] Spacing is not good.

SCALE FOR BUSINESS LETTERS

Example 1



Home Street
Dallas Oregon,
March 6, 1964

Mr. Sears
Sears and Robuck Company
386 W. Main
Salem, Oregon

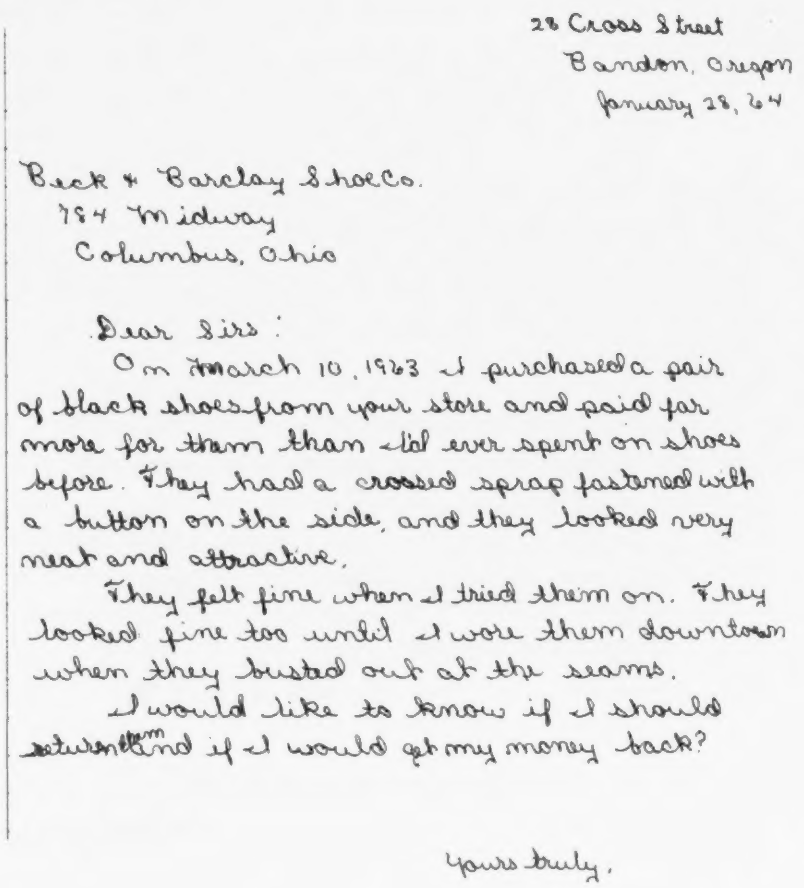
Dear Sirs,

I would like to return a baseball bat that was broken when I recived it and would like to have my money refounded.

Also I want to order a pair of field glasses.

Sincerely yours.

Example 2



28 Cross Street
Bandon, Oregon
January 28, 64

Beck & Barclay Shoe Co.
784 Midway
Columbus, Ohio

Dear Sirs:

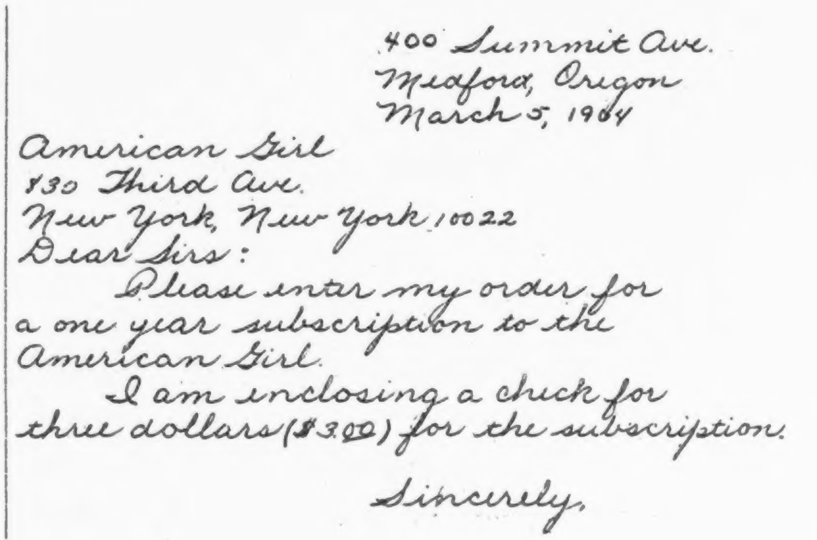
On March 10, 1963 I purchased a pair of black shoes from your store and paid far more for them than I'd ever spent on shoes before. They had a crossed sprap fastened with a button on the side, and they looked very neat and attractive.

They felt fine when I tried them on. They looked fine too until I wore them downtown when they bustad out at the seams.

I would like to know if I should return them and if I would get my money back?

Yours truly,

Example 3



400 Summit Ave.
Medford, Oregon
March 5, 1964

American Girl
830 Third Ave.
New York, New York 10022

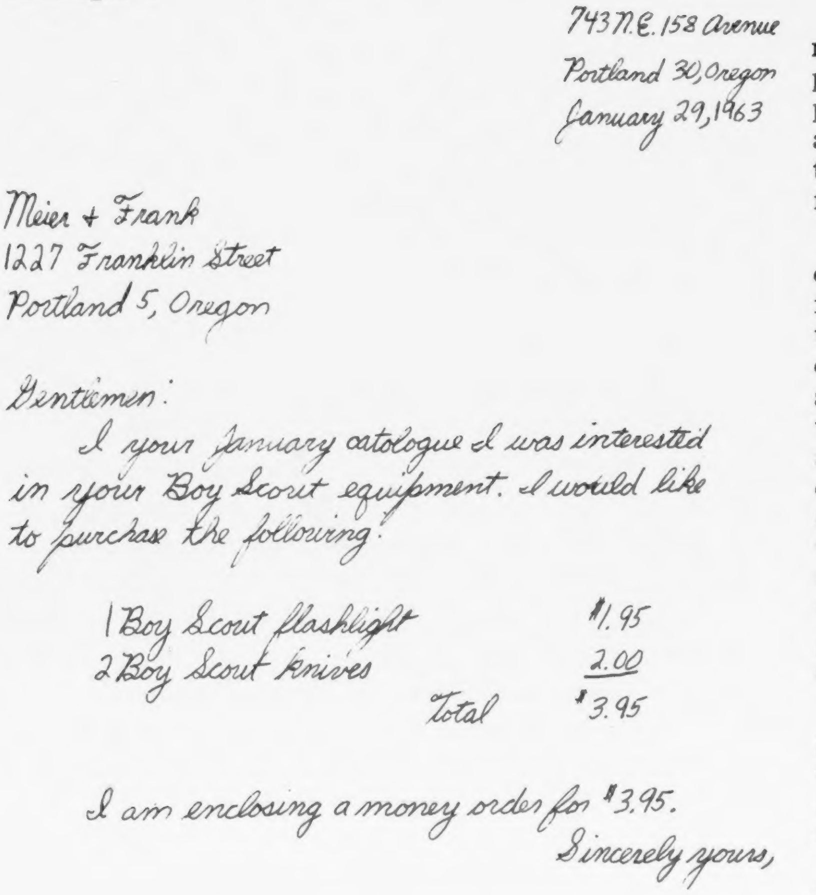
Dear Sirs:

Please enter my order for a one year subscription to the American Girl.

I am enclosing a check for three dollars ($3.00) for the subscription.

Sincerely,

Example 4



743 N.E. 158 Avenue
Portland 30, Oregon
January 29, 1963

Meier + Frank
1227 Franklin Street
Portland 5, Oregon

Gentlemen:

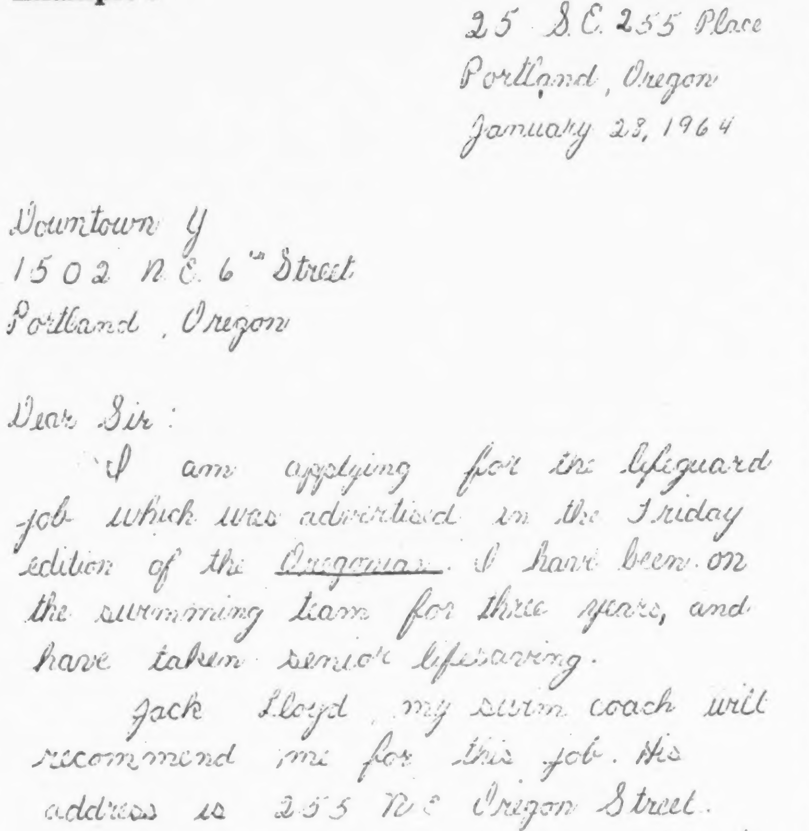
I your January catologue I was interested in your Boy Scout equipment. I would like to purchase the following:

1 Boy Scout flashlight	$1.95
2 Boy Scout knives	2.00
Total	$3.95

I am enclosing a money order for $3.95.

Sincerely yours,

Example 5



25 S.E. 255 Place
Portland, Oregon
January 23, 1964

Downtown Y
1502 N.E. 6th Street
Portland, Oregon

Dear Sir:

I am applying for the lifeguard job which was advertised in the Friday edition of the Oregonian. I have been on the swimming team for three years, and have taken senior lifesaving.

Jack Lloyd, my swim coach will recommend me for this job. His address is 255 N.E. Oregon Street. Mrs. Ruf, my gym instructor, will also recommend me if necessary. Her address is 1506 S.E. 148.

Yours truly,

HANDWRITING AND SPELLING

Handwriting and spelling are tools used to communicate effectively in writing. Since our culture prizes written communication, children need to gain proficiency in the use of these tools. Handwriting and spelling should *never* be considered as ends in themselves but rather as means to written communication.

Handwriting and spelling instruction should be considered in relation to the child's total readiness for the language arts and language development. In the sequence of development, writing as a means of expression comes only when a person has not only something to express but also the desire to do so with written symbols. This is as true for children as it is for adults. Usually, writing is the last one of the language arts skills that children develop. Currently, with the use of the language arts approach to the teaching of reading, writing and reading develop simultaneously. Readiness for learning handwriting and spelling will vary greatly within any group of children. The culture from which the child comes also influences the child's readiness.

When the child has a purpose for expressing his ideas, he will perceive the need for acquiring the tools that he needs; namely, handwriting and spelling. The functional approach for the initial instruction in handwriting and spelling is advocated.

Handwriting

If communicating ideas is accepted as the purpose of handwriting, then the factors which should receive emphasis in planning the program for the teaching of handwriting will be legibility and ease of producing the written symbols. Guiding children in self-evaluative techniques will aid them to improve legibility. Each person establishes his own style as an artistic expression of self. The examples of handwriting given to children by the teacher influence children's styles of writing more than anything else.

The manuscript form is now generally accepted as the initial type of writing for the young child. There are varying opinions as to when children should transfer from the manuscript to the cursive form. These two forms are unrelated and each must be taught as a new skill; there is little, if any, carry-over from the manuscript to the cursive style. The best time to change is when each child is ready. The readiness time will range usually from the latter part of the second year through the fourth year of schooling. The teacher who makes use of the individual's readiness and who helps children reach the readiness stage will find that the child will learn the cursive style with greater ease. There is some evidence that when a child is urged to make the change before he is ready he has problems of reading the written symbols as well as of writing them. When children are forced into change too early, the quality of both forms of writing is likely to be poor. The change to cursive writing should not be used as a status symbol.

Teachers need to provide opportunities and activities which will help the child maintain the skills of both styles of writing. Both manuscript and cursive writing are important and should be used throughout the educational program. The manuscript form of writing can be used with posters, field notebooks, forms, chemistry problems, algebraic equations, charts, and graphs.

At present, little is known about the kind or the thickness of the handwriting instrument best suited to the beginning writer. Research findings tend to minimize the emphasis on the large beginner's pencil and the steel pen nib and wooden holder. An instrument that can be easily grasped and is long enough to extend beyond the first knuckle is probably preferable for use as a handwriting tool by the child. Adult-size pencils and fountain pens (nib or ball point) are now generally considered acceptable.

Left-handed children need special consideration and help in adapting writing techniques and directions.

The teacher should study these techniques and apply them as rigorously to instruction of the left-handed child as he applies established techniques to the instruction of right-handed children. The teacher should never attempt to change the handedness of a child without specific approval of competent psychologists and medical specialists.

Spelling

Success in spelling, the other tool needed for written expression, is most likely to be achieved by children when taught in coordination with instruction in the different curriculum areas. Children's readiness for spelling varies widely. The wise teacher will wait for individual spelling readiness which is both a physical and mental state of development and maturity. No child should ever be expected to spell a word he cannot read. The cultural environment from which the child comes also influences his readiness.

Research indicates that there is a close relationship between the abilities of reading and spelling. Research findings seem to show that success in spelling is closely related to visual discrimination, phonetic ability, and mental age. Although most authorities recognize the advantages of the functional, meaningful approach to spelling, there is also some evidence that there needs to be some type of foundation word list, at least during the later years of the elementary school.

Recognition of the word and imagery, or mental reproduction, also appear to be requisites for learning to spell. Any good program in spelling should therefore place emphasis on these two factors. Equally important for success in spelling, but less tangible, is the need for the child to develop both a spelling "conscience" and spelling "consciousness."

Since children vary in their readiness, need for spelling, and learning abilities, each child must learn a method for learning to spell that will assure him success. No one method can serve all children; for some learning will be visual, for some aural, for some tactile, while others will use a combination of all three.

At present, the evidence on spelling approaches to use is inconclusive. The study-test approach seems favored for the young child while the test-study is more successful with the older child. However, there is considerable evidence that, for initial instruction in spelling, the functional approach is superior and that formal spelling instructions should not begin too early. At all ages, children will profit from keeping an individualized word list of words they find they need. These lists will come from all their activities and all curriculum areas.

Whatever method is found to be most productive for a given child in learning to spell, some concentrated, periodic drill in that method will be necessary to fix and make permanent the correct spelling habit desired.

One more competency should be added to the spelling "conscience": spelling "consciousness" and how to learn a new word. This is the skill of how to use the dictionary to find a word which the child suspects he does not know how to spell. This last ability will give him a sense of security as he uses the tool.

A proper perspective of spelling and writing will make the learning of these skills meaningful, purposeful, and easier. More important, children will use them as they communicate through writing.

PROOFREADING

One of the most effective methods of helping children improve their skills of written expression and competency in the mechanics of handwriting and spelling is to help children learn to appraise their own writing. This, too, is a skill that can begin with the child's first writing. If written materials are to be read by someone else, a high degree of accuracy is needed. Appraisal of one's own written work for both content and mechanics, or proofreading, begins with a set of standards which are used as criteria for appraisal. Where there is a consistent program, children will develop a high degree of pride in accuracy and good writing.

In beginning with younger children, small-group appraisal of a piece of written work is the first step. Keen observation and a desire to meet predetermined standards are requisites for proofreading. The number of standards used will depend on the children's abilities and progress along the continua. The criteria for children will of necessity vary within a classroom. If children have had a part in the pre-planning of the criteria, the quality will be higher.

There is now sufficient evidence to indicate that self-appraisal is far superior to teacher-correction of children's work in promoting competency in written expression. Purposeful written work also produces a better quality than does written work which is given to merely keep children "busy." Anything written is meant to be read by someone.

Emphases in the Language Arts Program

The primary purpose of the language arts program in the elementary school is to establish a fundamental literacy in the communicative skills on the part of all Oregon citizens. The survival of our democracy and of the American way of life is clearly dependent upon such universal literacy. Therefore, it is imperative that nothing in the organization and operation of the school program should obstruct the attainment of this goal.

READING

Reading with reasonable comprehension of materials of minimum difficulty at each level should be pursued as a goal for all pupils who are not handicapped by mental limitations.

SPELLING

For competency in spelling, the major portion of appropriate graded word lists should be pursued through intensive application of all applicable spelling methods, with sufficient drill employed to establish mastery through whatever learning method or methods are utilized.

HANDWRITING

Neglect of handwriting is a temptation for teachers beyond the primary grades. The extensive use of an adopted system of handwriting instruction is sometimes dropped and schools can be found in which there is no organized instruction in handwriting in the upper elementary grades. Whatever the attitude of the school administration toward handwriting systems and handwriting practice may be, individual teacher attention to the establishment of an acceptable degree of uniformity and legibility in handwriting by pupils should be required, for both the establishment and the maintenance of such qualities and abilities. Except for the physically and mentally handicapped, no child should be allowed to progress through the elementary schools without achieving standards of minimum acceptability in handwriting.

WRITTEN COMMUNICATION

The ability to produce an acceptable quality of written composition is generally found to be one of the weaker areas of most school language arts programs today, whether elementary or secondary. The deficiency in composition usually becomes manifest at the later secondary level or in early college years, and may carry over to handicap the citizen in his active adult life. It is often felt that much of this derives from lack of appropriate instruction in the elementary school. Whether this is true or not, certainly it is the duty of the elementary school to provide as vigorous and adequate instruction in composition as is possible under the circumstances. Generally this means providing many more opportunities to write with the best available motivation. The sheer lack of a sufficient required volume of writing in the elementary schools may be a factor in failure to condition the child toward ready use of writing as a successful means of communication. Teachers should encourage and demand increased quantities of composition, geared to the production level of the child.

LITERATURE

Literature is one of the most effective vehicles for the introduction and inculcation of many of the values of American life indicated in an earlier section of this Guide. Elementary teachers should seek to provide ever widening exposures to representative literature and sincere teaching of its content, so children may have opportunities to absorb the basic values and ideals of their culture.

SPEECH IMPROVEMENT

An ample program of speech instruction is outlined in this language arts section of the Guide for the pupil without speech deficiencies. No efforts, however, have been made to outline a program of speech correction for those children who have handicaps or deficiencies which limit their speech to a subnormal level of quality. While the classroom teacher will usually not be trained in speech correction or competent to carry on a program of correction for severe cases, she can cope with minor matters of immature speech development, inaccurate enunciation, and colloquial speech or dialect. Where severe speech cases exist within a school, the administration should seek to provide the proper speech correction services, either from within the district or through other arrangements.

Evaluation

INDIVIDUAL PROGRESS

1. Is the child listening—
   to learn?
   more discriminately?
   more appreciatively?
   with more enjoyment?
   to get ideas?
2. Is the child expressing his ideas—
   more clearly?
   more effectively?
   more accurately?
   more creatively?
   more aesthetically?
3. Is the child reading with—
   more understanding?
   more purpose?
   greater appreciation?
   more critical analysis?
   greater accuracy?
4. Does the child appear to be developing—
   a real desire to read?
   an interest in reading?
5. Does the child's written material display—
   more clarity?
   higher accuracy?
   more effective choice of expression?
   a more creative style?
   a more aesthetic manner?
6. Is the child showing growth in each of the skills of—
   listening?
   speaking?
   reading?
   writing?
7. What are the child's special strengths?
8. What are the child's apparent weaknesses?

PROGRAM

Evaluation is a continuous process for teacher and children. Questions like these might well be asked by the teacher in evaluating the language arts program:

1. What evidences do I have that the children are developing positive attitudes toward the varied language arts activities?

2. What evidences are there that children use the language arts skills as tools for learning?
3. Is the language arts program well balanced? What are its special strengths? Its weaknesses? What can be done to strengthen it?
4. Is each child being helped to improve his language arts skills in relation to his ability and maturity?
5. Are there opportunities to set goals, plan, and evaluate?
6. What evidences are there that children are making progress in the development of each skill?
7. Are children concerned enough about accurate spelling and legible handwriting to improve their abilities?
8. Does the program provide sufficient maintenance activities?
9. How are individual differences being met?
10. How effective is the reading approach in use?
11. Do children seem to be developing genuine pride in the learning of the language arts skills?
12. Is sufficient time being devoted to the language arts?
13. What evidence is there that children are developing an appreciation for literature, for words, and for the history of words?
14. What opportunities are there for children to perceive the interrelationships among the facets of the language arts program?

MATERIALS

1. Are there sufficient reading materials to meet the needs of each individual?
2. Are the reading materials sufficiently diversified to provide a balance in reading?
3. Is effective use being made of the tape recorder and other audio-visual devices and equipment for the development of speaking, writing, and reading skills?
4. Do the language arts materials challenge the children and stimulate interest and growth?
5. Is the instructional materials center properly serving the language arts program?

Glossary

Blend—In general, blends are of two types: vowel-consonant and double-consonant. When double consonant sounds are blended together rapidly without loss of identity of any of the sounds, the result is called a consonant blend. Examples: (st)op, (qu)ack, (tr)ack, (bl)ack, (sm)ooth, (st)one, mi(st), long(er), long(est), and bat(ted).

Configuration—The general outline or pattern of a word.

Digraph—A digraph consists of two letters representing one speech sound. A vowel digraph consists of two vowel letters representing one speech sound, as in s(ea)t, h(ea)d, b(oa)t, and (ea)t. A consonant digraph consists of two consonant letters representing one speech sound, as in si(ng), ba(th), and pi(ck).

Diphthong—A diphthong consists of two vowels pronounced in a sound sequence that gives the impression of one sound. The two sounds are blended so closely together that they form a compound sound, as in b(oy), c(ow), (oi)l, (ou)t, and f(ew).

Heteronym—A word with the same spelling as another but having a different pronunciation and meaning, such as *lead,* the name of a metal, and *lead,* the verb "to conduct."

Homograph—A word that is the same in spelling as another word but different in origin, in meaning, and sometimes in sound; for example, *tear* (differing in sound) or *bear* (the same in sound).

Homonym—A word having the same pronunciation as another but a different origin, meaning, and often, spelling, for example, *there* and *their, ate* and *eight,* and *here* and *hear.*

Inflected Form—A form of a word made up of a root word plus an inflectional ending or suffix; for example, *cars* is an *inflected form* of *car.*

Mathematics

Mathematics, like other subject areas in the elementary school curriculum, is undergoing much change. The changes in this field have been described by some authors as a "revolution in mathematics."① The revolution is making itself felt in mathematics curriculum reform, teacher preparation, and in-service education as well as in the classroom. New mathematics texts reflect these major curricular changes. It is hoped that this Guide will help teachers to better provide the instruction by which children will obtain the concepts necessary for an adequate understanding of the mathematical problems with which they may be required to cope.

Important as the revolution in mathematics content is, it may prove to be of less significance than the changes which are being brought about in the development of theories which explain the manner in which children learn. The causes of this revolution in the mathematics curriculum can be identified as follows:

> Recent research in mathematics has vastly increased mathematical knowledge.
>
> The development of automation, digital computing machines, and other applications of mathematical processes have created a need for change.
>
> Mathematics has traditionally been thought of as a skill subject. Today the emphasis of mathematicians is upon understanding as well as upon skill of computation.②

Contemporary Mathematics

In order to meet the children's needs, an up-dated mathematics education is required. Today's mathematics programs emphasize teaching the structure of mathematics by the guided discovery method because research has revealed that this is the way children learn. Much mathematics as presented in a modern or contemporary program is discovered by the pupil in an atmosphere of active inquiry. Various experimental programs have demonstrated that an atmosphere of inquiry and discovery leads to enthusiastic participation by the learner.

Another aspect of contemporary mathematics which contributes to its teachability is its content coupled with the discovery method of learning. Few new or startling developments in mathematics are introduced at the elementary level, but many of the basic operations and concepts are developed by guided discovery techniques.

Americans are committed to intensive scientific and technological progress. For this reason it is vitally important that many students pursue mathematical studies to the limits of their abilities. ". . . it is at the grade-school level that children must acquire a liking for, an interest in, and an inclination for mathematics if we are to guarantee that they will study mathematics further. . . . A modern arithmetic program does not mean a complicated or difficult arithmetic program."③ Many of the difficulties experienced with new mathematics programs have to do with changes in the teaching process. Teachers must realize anew that too much of teaching has been telling.

Learning mathematics involves using mathematical ideas already accepted or proved to discover new patterns of thinking, or formulate new mathematical ideas. An up-dated mathematics program helps pupils to add, subtract, multiply, and divide through the study of numbers, and the relationships that exist between numbers. Children learn through discovery as they explore various relationships of numbers, and they *practice* what has been learned as they continue to explore.

Some elements of today's elementary mathematics program are using the language precisely, discovering and using patterns, and treating numbers as abstract entities. Such a program lays a foundation of understanding and creates a spirit of inquiry which will permit success with a much broader and deeper mathematics program in future years.

In contemporary mathematics, there is strong emphasis on *understanding* the decimal numeration system. In teaching the decimal numeration system, it is essential that the distinction between a number which is an idea and a numeral which is the name or symbol for that idea be stressed. Mathematical sentences are useful in clarifying ideas about relationships. (A mathematical sentence is simply a statement concerning numbers in which a number, set, or point may be used with a verb such as = and conjunctions such as +, —, ×, and ÷. The noun-verb-noun sentence form is common.)④

Most elementary mathematics programs include elementary concepts of algebra and geometry which help build a background for understanding many other concepts. Pupils can learn these concepts at an early age; they can discover that the point, like a number, is an idea and can use the number line as a graphic tool for stimulating thinking, deepening understanding, and adding variety to learning experiences.

A contemporary mathematics program deals with mathematical ideas and concepts, some of which may be unfamiliar to elementary teachers. They include sets; divisor-quotient relationships; associa-

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① Adapted from G. Baley Price, "Progress in Mathematics and Its Implications for the Schools," *The Revolution in School Mathematics*, National Council of Teachers of Mathematics, Washington, D.C., 1961, p. 1.

② *Ibid*, pp. 1-14.

③ Silver Burdett Company, "Why the Need for Modern Arithmetic?" *The Resourceful Teacher, Number 8*, Morristown, New Jersey.

④ Adapted from State Department of Education, State Curriculum Commission, Advisory Committee on Mathematics, "Strands of Mathematical Concepts," *California Mathematics Council Bulletin*, The Department, Reprint, Vol. 20, No. 2 (Fall 1962), p. 10.

tive, distributive, and commutative principles; identity elements; inverses, and inverse operations. An up-to-date mathematics program helps pupils develop the skills, concepts, and language necessary for mastery of more difficult mathematics in the secondary school.

It should be further emphasized that mathematical curricula and studies are open-ended. New discoveries and new ideas are essential if we are to grow and expand our knowledge. Continued study and continual development should be the goal of every mathematics teacher.

Goals

Goals for developing a mathematics curriculum for elementary pupils are suggested by the criteria used in the selection of mathematics textbooks for the schools of Oregon from September 1, 1965 to 1971. Pertinent criteria are restated here.

The elementary mathematics curriculum for any school should—

1. Reflect the findings of nationally recognized authorities and writing groups in mathematics and learning theory.
2. Have mathematical integrity which involves internal consistency, accuracy, and precise vocabulary
3. Utilize the concepts and vocabulary developed.
4. Lead the student to understanding the concepts, structure, and techniques of the subject.
5. Provide for applications of the subject and for sufficient practice to fix concepts and maintain skills.
6. Have continuity, present material sequentially, and amplify ideas by building on the students' previous knowledge.
7. Provide for individual differences so that students of all levels of ability can achieve maximum growth.
8. Develop in the student a sensitivity to patterns in mathematics.
9. Provide opportunities for imagination and creativity.
10. Employ, where possible, an inductive approach providing for student discovery. The text should develop many concepts through activities from which a student may independently recognize the desired knowledge as opposed to listing concepts and attempting to rationalize them through example.
11. Employ a deductive process for the testing of hypotheses and the analysis of structure.
12. Employ a level or rigor appropriate for the level of the mathematical maturity of the student.
13. Employ a problem-solving thesis.
14. Include problem sets—
    a. Which are random as to type so that students are not pointed directly to the solution.
    b. Where some problems have too much or too little information given.
    c. Which contain problems of varying difficulty.
15. Include suggested activities which will provide students a chance to experiment, observe, and generalize.
16. Be flexible in providing for adaptation and transition to contemporary mathematics curricula.

Scope

The school mathematics curriculum should be built around the following mathematical concepts, ideas, and processes. Experiences with these should be introduced in the primary grades and expanded in the intermediate and upper grades.

- Nature of number
- Numeration and numeration systems
- Order and relations
- Measurement
- Geometry (form, position, space)
- Graphs and scale drawings
- Operations on numbers and numerals (addition, subtraction, multiplication, and division)
- Informal proof
- Mathematical sentences

Mathematical learning is based upon a continuum. Each new idea is discovered and built upon already acquired understandings. Repetitive practice is used—

When a need is indicated.

When understanding has been developed.

When the social utility of arithmetic is recognized.

When loss of concepts will not result from the drill.

When the inductive approach to all rules has been used.

When the processes upon which the drill is based have been discovered by the pupils.

The scope of elementary mathematics includes a number of concepts. It is important that children understand these concepts which are named in the following chart, but *there is no need to require children to learn the names of the concepts, and it is advisable to delay the formal definition of each until the upper grades and high school.* Teachers should use the correct mathematical name for a concept when it is natural and easy to do so. This practice leads to growth of the child's vocabulary without tension or effort. The child's effort should be channeled to understanding concepts.

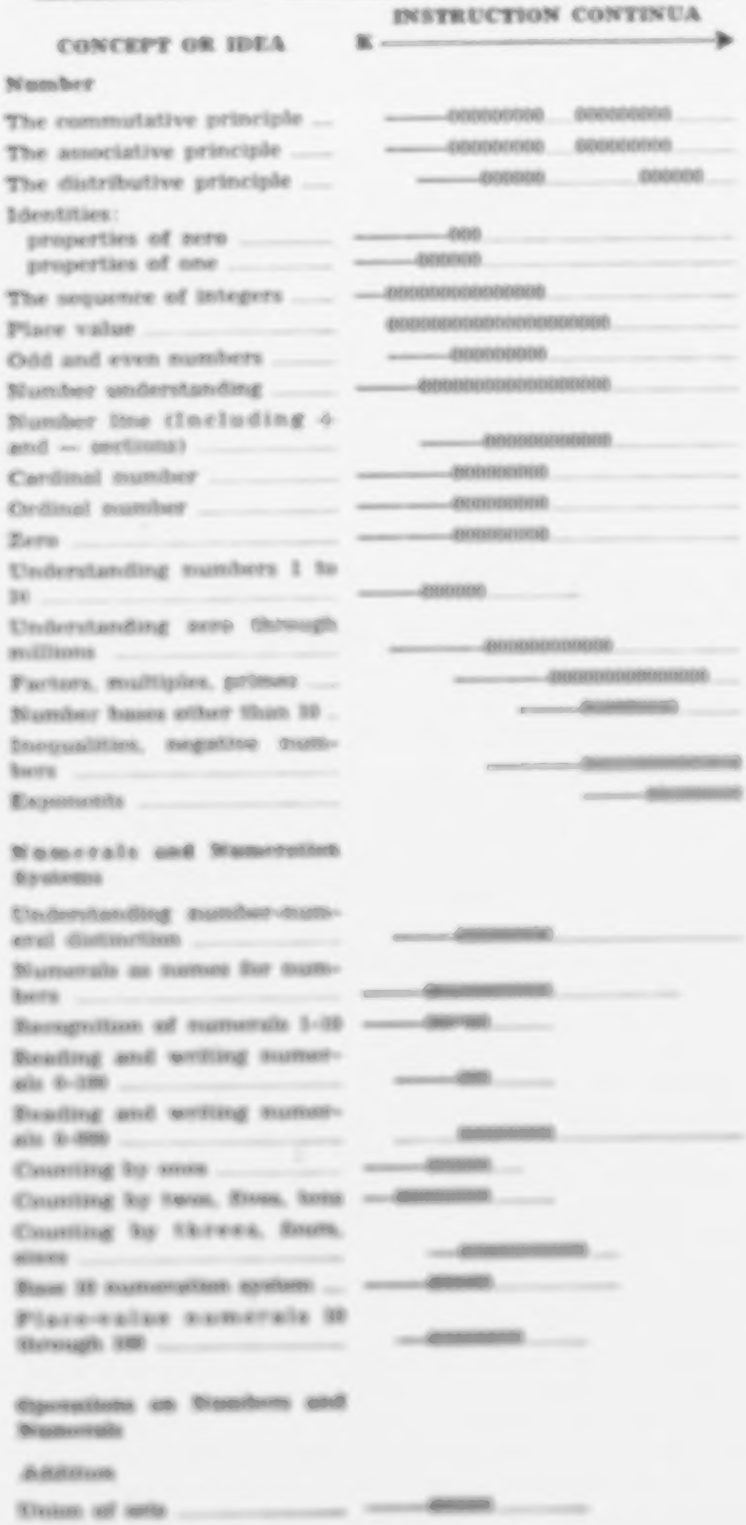
The following chart which indicates a partial framework places the responsibility for timing in the hands of the teacher. The teacher's decision in this matter is of greatest importance and should be based upon the readiness of the child for the concept or mathematical idea. It is the task of the teacher to use judgments, test scores, and accumulated records to determine pupil level and progress. Individualized instruction, grouping within the classroom, or cross-grade grouping, are indicated if instruction in mathematics is to be efficient. The spread in mathematical understanding among pupils should increase as children progress through school.

Ideas or Concepts

The sequence of mathematics in the elementary school is indicated here by continua. The single line indicates the first introduction of a concept to the children. The line of 0's indicates the major instruction in the concept or mathematical idea; and the broken line, the maintenance aspect in the curriculum. Teachers are expected to introduce new ideas *when the maturity and readiness of pupils is compatible with the difficulty of the concept.* Textbook series vary a great deal in this regard.

MATHEMATICS CONCEPTS OR IDEAS CHART

Key:	
————————	Readiness for concept
000000000000000000000	major instruction
________________	Maintenance of understanding



CONCEPT OR IDEA — **INSTRUCTION CONTINUA** K →

Number

The commutative principle
The associative principle
The distributive principle
Identities:
  properties of zero
  properties of one
The sequence of integers
Place value
Odd and even numbers
Number understanding
Number line (including + and − sections)
Cardinal number
Ordinal number
Zero
Understanding numbers 1 to 10
Understanding zero through millions
Factors, multiples, primes
Number bases other than 10
Inequalities, negative numbers
Exponents

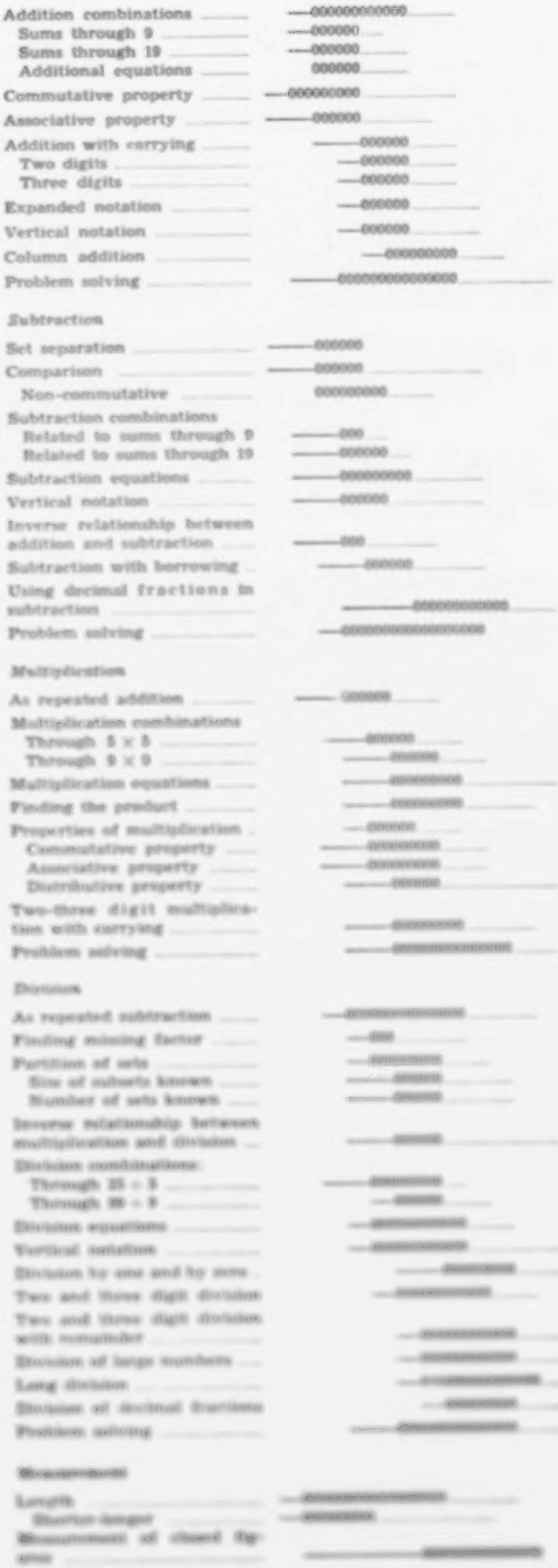
Numerals and Numeration Systems

Understanding number-numeral distinction
Numerals as names for numbers
Recognition of numerals 1-10
Reading and writing numerals 0-100
Reading and writing numerals 0-999
Counting by ones
Counting by twos, fives, tens
Counting by threes, fours, sixes
Base 10 numeration system
Place-value numerals 10 through 100

Operations on Numbers and Numerals

Addition

Union of sets



Addition combinations
  Sums through 9
  Sums through 19
  Additional equations
Commutative property
Associative property
Addition with carrying
  Two digits
  Three digits
Expanded notation
Vertical notation
Column addition
Problem solving

Subtraction

Set separation
Comparison
  Non-commutative
Subtraction combinations
  Related to sums through 9
  Related to sums through 19
Subtraction equations
Vertical notation
Inverse relationship between addition and subtraction
Subtraction with borrowing
Using decimal fractions in subtraction
Problem solving

Multiplication

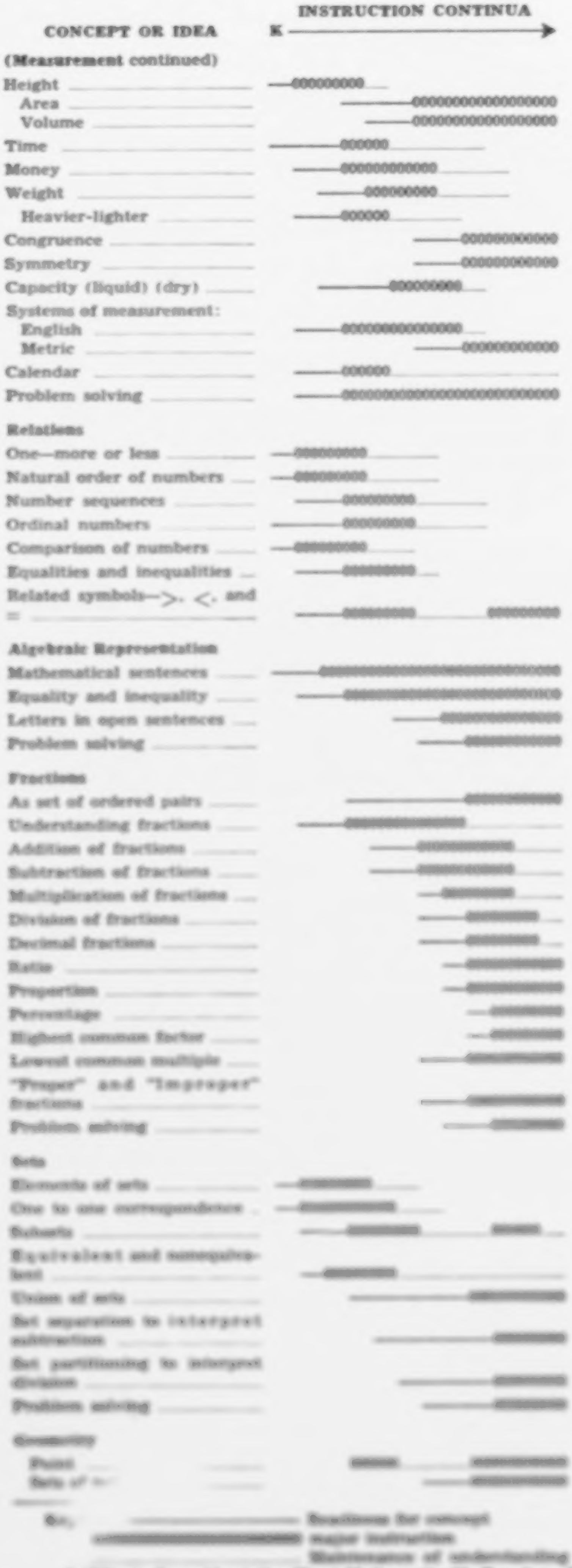
As repeated addition
Multiplication combinations
  Through 5 × 5
  Through 9 × 9
Multiplication equations
Finding the product
Properties of multiplication
  Commutative property
  Associative property
  Distributive property
Two-three digit multiplication with carrying
Problem solving

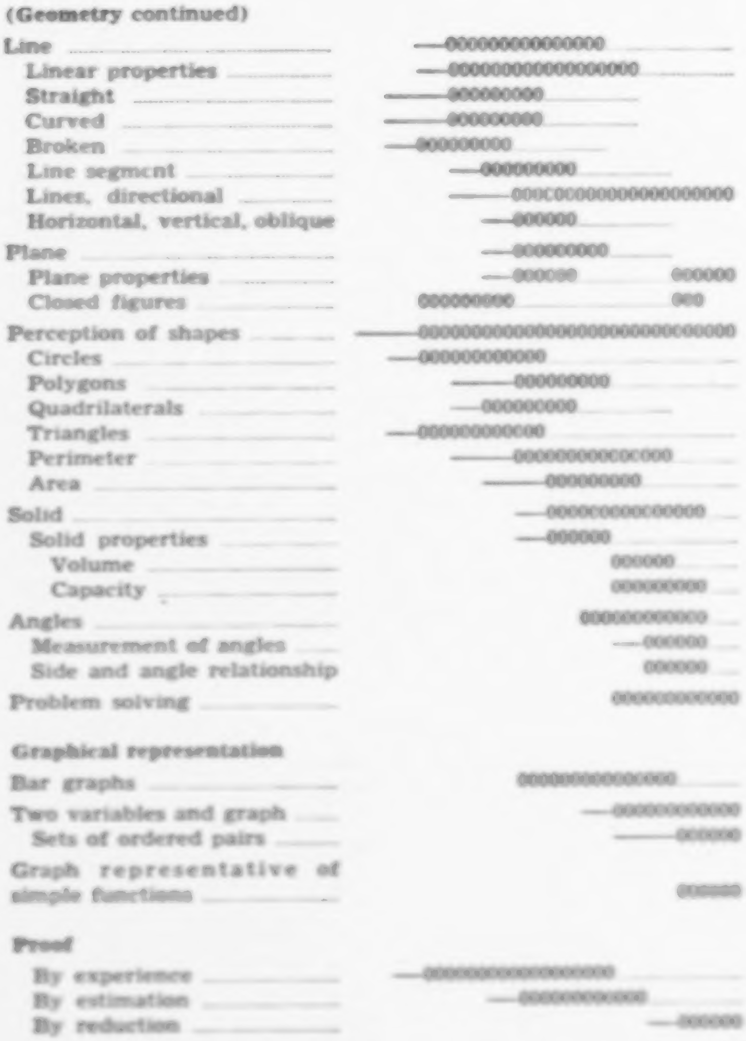
Division

As repeated subtraction
Finding missing factor
Partition of sets
  Size of subsets known
  Number of sets known
Inverse relationship between multiplication and division
Division combinations:
  Through 25 ÷ 5
  Through 81 ÷ 9
Division equations
Vertical notation
Division by one and by zero
Two and three digit division
Two and three digit division with remainder
Division of large numbers
Long division
Division of decimal fractions
Problem solving

Measurement

Length
  Shorter-longer
Measurement of closed figures





Development of a Classroom Mathematics Program

Elementary teachers who are accustomed to more specific statements of scope for their grade levels, as found in more formal courses of study, may have difficulty in organizing a classroom mathematics program based upon the preceding chart.

The following summary of the Pasadena City Schools' Curriculum in "new" mathematics may be helpful in indicating the things that will go into a typical grade-by-grade program embodying these mathematical concepts and ideas.①

KINDERGARTEN. Informal number readiness program based upon actual experiences with numbers and number relationships. Development of quantitative vocabulary and concepts of size, shape and space. Familiarity with and use of number symbols.

GRADE 1. First use of arithmetic textbook. Operations of addition and subtraction learned through use of concrete sets of objects. Concepts of measurement developed. Mathematical notation used to solve simple quantitative problems. Symbols of mathematical sentences stressed. Fractional numbers introduced.

GRADE 2. Continued development of number operations with emphasis upon structural properties. Multiplication and division processes. Understanding of place-value numeration system. Further practice in problem solving through use of mathematical sentences. Measurement problems, including money and time.

GRADE 3. Mastery of fundamental operations with small numbers. Operations with simple fractions. Mathematical

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① "What's New About the 'New' Mathematics?", *Pasadena Schools in Action*, Vol. VII, No. 5 (January 1965), pp. 3-6.

notation refined through increasing use of symbolism. Thought problems involving mathematical reasoning. Continued emphasis upon number-numeral distinction and structural properties of operations on whole numbers.

GRADE 4. Skill in finding products of two- and three-digit numerals by a one-digit numeral. Division by a one- and two-digit divisor. Extension of quantitative vocabulary, applied to mathematical sentences. Use of number line in demonstrating different names for rational numbers. Introduction of familiar geometrical objects as sets of points.

GRADE 5. Ability to solve increasingly difficult manipulative problems involving fractions, decimal numerals and mixed numerals. Discovery and proving of mathematical relationships. Continued use of number line to illustrate addition and subtraction of fractions and mixed numerals. Factors and least common multiple. Precision of measurement and measure of area. Non-decimal numerals.

GRADE 6. Perfection of fundamental processes with positive rational numbers, including whole numbers, fractions, and decimal numerals. Increased understanding of measurement with applications to two and three dimensions. Continued use of mathematics in problem-solving situations. Analysis of data through use of graphs; applications of ratio and per cent. Use of exponents in expanded notation. Introduction of the negative integers.

	COLLEGE PREPARATORY		NON-COLLEGE PREPARATORY
Grade	(Accelerated)	(Non-Accelerated)	
7	7th and 8th Gr. Arithmetic	7th Gr. Arithmetic	7th Gr. Arithmetic
	↓	↓	↓
8	Algebra 1A-1B	8th Gr. Arithmetic	8th Gr. Arithmetic

Evaluation

The evaluation of instruction is the quality control aspect of the educational process.① Many factors are involved in evaluation such as the individual differences of pupils; the varied rates of pupil development and progress; the influences of the teacher, the home, and the community; the subject matter to be taught; the teaching technology; the pupils' attitudes; and the goals which have been accepted for the subject. The magnitude of the problem requires that many factors be identified and evaluated. Some of these factors can be measured by objective instruments, but most aspects require value judgments based upon insight and discrimination. It is logical to start the evaluation process by the identification of the goals of mathematical education in the elementary school and then determine if the mathematics curriculum of the school brings about the realization of the goals by the children.

A sample list of objectives or goals suggested by Max A. Sobel and Donovan A. Johnson are quoted below:

> The student should:
>
> —have a knowledge and understanding of mathematical processes, facts, and concepts;
>
> —have skill in computing with understanding, accuracy, and efficiency;
>
> —have the ability to use a general problem-solving technique;
>
> —understand the logical structure of mathematics and the nature of proof;
>
> —use mathematical concepts and processes to discover new generalizations and applications;
>
> —recognize and appreciate the role of mathematics in society;
>
> —develop study habits essential for independent progress in mathematics;
>
> —develop reading skill and vocabulary essential for progress in mathematics;
>
> —demonstrate such mental traits as creativity, imagination, curiosity, and visualization;
>
> —develop attitudes that lead to appreciation, confidence, respect, initiative, and independence.②

There are three questions which need to be answered in the evaluation process if there is to be a high quality mathematics education:

1. Is each child learning to think quantitatively at a level consistent with his ability?
2. Is each child able to solve problems of the degree of difficulty which is consistent with his maturity?
3. Can each child communicate his mathematical understandings and ideas?

The teacher needs to determine each child's ability and achievement in mathematics before it is possible to adequately evaluate mathematical progress. Some of this information may be secured by the use of standardized tests, pupil records, and the observations of other teachers who have worked with the child; but the major estimation of a pupil's mathematical ability and maturity rests upon the professional judgment of the qualified teacher. *The use of diagnostic teaching techniques is essential* if an accurate understanding of pupil progress is to result.

The content of mathematics education should be evaluated on the basis of its mathematical soundness, the preciseness of the language involved, the mathematical principles developed, the skill development features of the program, the mathematical symbols used, and the *methodology employed to teach the concepts.* Teachers should use guided discovery techniques so that pupils are lead to discover intuitively many mathematical concepts which are the content of the mathematical curriculum. A list of these concepts which has been suggested by mathematicians is included in this Guide.

Conclusion

Elementary teachers are referred to pages 93-99 of the handbook entitled *Teaching Oregon's Children: Handbook for Elementary Teachers.*

> The meanings which are necessary to a child's understanding of arithmetic are his individual and personal possessions. He cannot accept and apply another person's understanding to his own situation. He must, through experience, develop his own set of meanings and do his own thinking, for arithmetic cannot simply be transmitted from one person

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① Adapted from Donovan A. Johnson, "Introduction," *Evaluation in Mathematics,* 26th Yearbook, The National Council of Teachers of Mathematics, Washington, D. C., 1961, p. 1.

② Max A. Sobel and Donovan A. Johnson, "Analysis of Illustrative Test Items," *Evaluation in Mathematics,* 26th Yearbook, The National Council of Teachers of Mathematics, Washington, D. C., 1961, p. [illegible] to another. The teacher can set the stage, provide the material, and guide, but the pupil must experience, experiment, and build for *himself* the meaning of arithmetical relationships and processes.①

Glossary

In the elementary school, children *should not* be taught definitions and names of mathematical concepts until they intuitively understand the mathematical relationships, operations, or ideas which are described by the term, and have need for a better term in communicating the idea. Formalized teaching of terminology may prove deadly to the understanding of the concept. *This glossary includes words which are used in many of the contemporary mathematics textbooks* and is designed for teachers who desire to upgrade their mathematics understanding.

Algebra—That part of mathematics which extends arithmetic by including additional symbolism which permits extended problem solving, generalizations, and abstract arithmetic relationships.

Associative Principle—When three or more numbers are operated on, the way in which the numbers are grouped will not affect the result. Examples: $(2 + 3) + 4 = 2 + (3 + 4)$, or $(a \times b)c = a(b \times c)$.

Base (of numeration system)—Number which indicates the grouping pattern in a place value numeration system. It also indicates the number of digits necessary in the numeration system. Example: base ten requires the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, and groups by tens.

Binary Operation—A binary operation consists of associating two numbers with a number which for the basic operations is called a sum, a difference, a product, or a quotient.

Cardinal Number—A number which tells how many things are in a group or set of things.

Closure—An operation is closed in a set if the result of the operation on every ordered pair of elements in the set is an element in the set. The sum of any two natural numbers is a natural number. Therefore, that addition is closed for natural numbers. If any two natural numbers are subtracted, the difference is not necessarily a natural number. Subtraction is not closed for natural numbers.

Commutative Principle—When numbers are operated on, the order of operation will not change the result. Examples: $2 + 3 = 3 + 2$, or $2 \times 5 = 5 \times 2$.

Computation—The structural manipulation of numerals or other symbols to secure a result such as a sum, product, difference, or quotient.

Congruence—The state of a relationship between geometric figures requiring that their size and shape be the same.

Coordinate—One of a set of numbers which locates a point in space. Each coordinate indicates the distance from one of a set of reference lines which meet in a common point.

Digit—One of the symbols used to write a numeral in a given numeration system.

Distributive Principle—(With relation to multiplication over addition.) The product of a number and the sum of two or more numbers is the same as the sum of the products of the number and each of the addends. Example: $2(4 + 3) = (2)(4) + (2)(3)$.

Element of a Set—A general name for any one of the things in a set.

Equal Sets—Two sets with the same elements.

Equation—A mathematical sentence which states that two expressions are equal.

Equivalent Sets—Two sets are equivalent if their elements can be placed in one to one correspondence, or if they have the same cardinal number. Equal sets are equivalent but equivalent sets are not necessarily equal.

Exponent—A numeral which usually tells the number of times the same factor is used.

Factors—Numbers which produce a product if multiplied or numbers by which a product is divisible without a remainder. (If applied to whole number factors.)

Geometry—The part of mathematics that deals with points, lines, figures, angles, planes, and space.

Identity Element—The identity element for a particular operation is that element which in operation with any other element yields that other element. Examples: 0 is identity element for addition, $0 + 5 = 5$ and $5 + 0 = 5$. 1 is the identify element for multiplication, $1 \times 3 = 3$ and $3 \times 1 = 3$.

Inequality—Mathematical sentences which deal with relationships such as "greater than" ($>$), "less than" ($<$), or "not equal to" ($\neq$).

Integers—The positive and negative whole numbers and zero.

Intersection of Sets—Intersection of two sets is the set of all elements which are in both of the original sets.

Inverse—Any element operated on with its inverse yields the identity for that operation. In the operation called addition, the inverse of +3 is —3. The inverse of 4 is ¼ in the operation called multiplication.

$$3 + (-3) = 0 \qquad -3 + 3 = 0$$
$$4 \times \tfrac{1}{4} = 1 \qquad \tfrac{1}{4} \times 4 = 1$$

Line—Undefined term frequently described as a geometric figure having only one dimension.

Line Segment—That part of a line located between any two points on the line.

Mathematical Sentence—A sentence which employs mathematical symbols. There are two types of these sentences: matematical statements (closed sentences) and open sentences.

Mathematical Statement (closed sentence)—A mathematical statement is a mathematical sentence which is either true or false. Examples: $3 + 4 > 5$ (true), $2 + 7 = 8$ (false).

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① State Department of Education, *Teaching Oregon's Children: Handbook for Elementary Teachers*, the Department, Salem, Oregon, [illegible], p. [illegible].

Natural Number—Usually refers to the positive whole numbers. Some mathematicians include zero.

Number—An abstraction associated with numerousness (cardinal number) or order (ordinal number).

Plane—An undefined term usually described as a geometric element with two dimensions.

Point—An undefined term usually described as a geometric element which has position but no dimension.

Prime Number—A number which is evenly divisible (no remainder) only by itself and one.

Proportion—A proportion is a statement of equality of ratios. A proportion can be interpreted as a statement of equality of rational numbers (fractions).

Ratio—Ratio is an ordered pair of numbers often used to compare two things. Commonly expressed as a fraction.

Rational Number—A number in the form $\frac{a}{b}$ when a and b are integers and b is not zero. In other words, rational numbers include all positive and negative fractions which have integral numerators and denominators.

Ray—The set of all points extending in one direction from a given point.

Real Numbers—Real numbers consist of rational and irrational numbers.

Reciprocals—Any two numbers whose product is one are reciprocals of each other.

Set—Any collection or group of things is a set. An implied property of set is the distinguishability of elements within the set from elements not in the set.

Number Line—A line usually marked at unit distances denoting the natural numbers in their usual order. Example:

. . . —3 —2 —1 0 1 2 3 4 . . .

Numeral—A symbol used to name a number.

Numeration System—A system of symbols to represent numbers which make it easier to work with number ideas.

Open Sentence—A sentence whose truth value cannot be determined until an open space, or blank, or an unknown, is replaced by a numeral. Example: $4 + X = 10$. This is true if "X" is replaced by 6, but it is false if "X" is replaced by any other number.

Operation—An association of ordered pairs of elements from a set with elements of that set. The four fundamental operations are addition, subtraction, multiplication, and division.

Ordered Pair—A pair of things in which the order of occurrence is important. Example: $(3,2) \neq (2,3)$.

Ordinal Number—A number indicating a place or position in a series.

Place Value—A term which refers to the different values understood to be assigned to digits in a numeration system according to their positions relative to other digits. Example: In the base ten numeral 333 reading from left to right, the first digit represents 300, the second 30, and the last 3.

Solution Set—The set of all numbers which when used to replace the open space or variable in an open sentence makes a true statement.

Subset—A set whose elements are members of another set is called a subset of that other set; i.e., if all elements of one set B are contained in another set A, set B is a subset of set A.

Symbol—A symbol is a mark, numeral, or letter which is understood to name an object or idea, or to hold the place for the name of an object or idea in a mathematical expression.

System—A pattern, design, or scheme concerned with a central objective.

Union of Sets—The union of two sets is the set which contains all of the elements in either set.

Universe—The set of all the elements under consideration. Domain and universal set are used synonymously with universe.

Variable—A variable is a place holder in an open sentence. For example, the letter "X" in the open sentence "$X + 3 > 7$" is a variable.

Zero—Zero is the cardinal number of the empty set (the set containing no elements).

The Arts

The study of a few selected art fields, particularly music and art, has long prevailed within the public schools of our nation and state. The degree to which all the arts are seen in relation to the behavior of man within a culture, however, may be open for considerable speculation. Each art form is but one aspect of a larger field concerned with relationships. This larger field of study, aesthetics, is closely related to the social sciences, especially philosophy, cultural history, and psychology. One approach to its study may be through the relationship of the arts within a culture.

As in other fields of inquiry, appropriate concepts and generalizations are formed through systematic and methodical study with inquiry proceeding through the use of a schematic structure. At the elementary level, it is suggested that the seven arts be categorized as guides to form a comprehensive and cohesive structure for inquiry. Seven selected arts useful for inquiring are:

Music
Art (painting, drawing, crafts)
Drama
Literature
Dance
Architecture
Sculpture

Aesthetics has a unique vocabulary which should be used when formulating verbal questions or stating concepts. A sample vocabulary for teacher use, composed of terms from several art areas, is:

harmony
rhythm
form
balance
mood
intensity
design
pattern
power
proportion
modulation
movement
fundamental
unity
depth
color
style
duration
texture
tone

The particulars of an aesthetic phenomenon such as beauty will vary with the unique aspects of each art area. While the details of a phenomenon will vary, each contributing field, whether studied separately or from a culturally related point of view, is concerned with *creation, appreciation*, and *evaluation*. These three common concerns are based upon highly complex theoretical positions and related aspects such as standards, perceptions, and the processes people use in making such judgments. At advanced levels of study, the aesthetic phenomenon is examined from precise theoretical positions such as psychology and semantics.

In the past, aesthetics has been concerned chiefly with issues as they relate to "beauty". Various "schools" of aesthetics propounded laws which tended to restrict the process of inquiry and the identification of relationships between the arts and the pursuits of man. The broadening point of view particularly in the United States is to place less emphasis upon aesthetic laws and to stress the relationships of the arts to various cultures. The aesthetic approach to the study of the arts may, therefore, be through their relation to man and how he deals with his art products and artistic processes.①

Aestheticians could undoubtedly argue for other ways of organization although it should be remembered that elementary instruction in this area is precisely elementary. While various theories regarding aesthetics prevail, and while it is desirable for teachers to be aware of theories regarding aesthetics, the concern of the elementary school in this area is primarily for an approach to the study of the arts as related to a culture rather than one of fragmented specialization.

For too long, no systematic treatment of the arts as they relate to a total culture has prevailed despite the well intentioned efforts of those who advocate a "correlated activities" approach. It is the position of this Guide that planned instruction toward an understanding of relationships within a culture should constitute the keystone of all study whether it be social studies or the related aesthetic concerns from the arts.

Since the field of aesthetics is so closely related to a culture, it is suggested that its study be organized as a part of the second stage of the teaching and learning sequence as outlined in the social studies module. This is the stage where content is organized by the teacher and the ultimate direction of study or the scope of the problem is stated. If at this stage the problem is "How does Mexico's Past Affect the Present," the teacher should deliberately plan instructional confrontations which include all of the arts. The teacher then helps children inquire from the viewpoints of music, art, drama, literature, dance, architecture, and sculpture. As may be noted in the social studies module, the next steps are the formulation of aesthetic concepts and generalizations, the application, and teacher directed transfer to new situations. The module presented for the social studies, therefore, may be used as a teaching-learning guide in this area too.

The suggested arts when used for inquiry do not supplant but are used in conjunction with the social studies categories to supply additional sources of cultural relationships. As noted in the explanation of the module in the social studies section, teaching must be deliberate, planned, and methodical; however, the content; organization of the content; inquiry categories; and the children's conceptualizations, generalizations, applications, and transfers will vary. The importance of teaching being a deliberate and sequential process in this area, too, cannot be overemphasized.

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① Adapted from Thomas Munro, "Recent Developments in Aesthetics in America," *Newsletter*, American Council of Learned Societies, Vol. XV, No. 2 (February 1964), pp. 1-12.

Music

The music section of this Guide represents an attempt to view one of the arts from a cultural perspective. The treatment of music as an area of specialization is not presented here since detailed suggestions for all ages are to be found in *Music Education in Oregon Public Schools.*

Scope

The scope of music education in the public schools is the development of—

- Musical pleasure
- Musical skills
- Creative capacities
- Knowledge of musical literature
- An understanding of the symbols and vocabulary of music
- An understanding of the structure of music
- An understanding of musical expression.①

In addition to the above, music from a culturally related point of view is also concerned with the development of—

- An understanding of music as it relates to the culture from which it is derived
- An understanding of the artistic processes of music and the other arts.

Organizing for Instruction

Music, as other specialized fields, possesses structural and technical peculiarities. Music teaching is generally better left to the specialist who carries responsibility for the teaching of the musical structure—rhythm, melody, and harmony. However, it is the responsibility of the classroom teacher who is assigned the teaching of the social studies at the elementary level to carry the major responsibility for music, art, drama, literature, dance, architecture, and sculpture as a cohesive area of study related to the social studies field. While every classroom teacher with responsibilities in the social studies is expected to teach music and the other arts as related to a culture, the classroom teacher is not necessarily expected to teach the structural and technical details of music.

Exceptions to personnel responsibilities always prevail, but exceptions to the teaching obligation seldom if ever vary. One exception in teaching responsibilities is to be found in small schools where no specialist in music is available. In such cases, local circumstances call for full teaching responsibility for the cultural as well as structural aspects of music insofar as technical proficiencies allow. However, regardless of one's technical and/or artistic limitations, music culturally related as a cohesive area of study with the other arts must prevail.

Teaching Responsibilities

A chart indicating suggested teaching responsibilities for the two facets of music follows. One facet is structurally oriented, the other culturally oriented. It should be noted that a major difference in the responsibilities is that the classroom teacher's specialized concern is primarily with skills, pleasure, creative capacities, musical literature, vocabulary, structure, and expression *as they relate to other cultures.* The music specialist however is concerned with these aspects of music *as they are derived from and relate to our culture.*

While the classroom teacher shares some responsibility for teaching music as it relates to our culture, such teaching is incidental. Likewise, for the music specialist an overlapping of teaching some aspects of music as they relate to other cultures may occur. Such teaching here is also incidental since the primary responsibility for the music specialist is teaching music within our culture through a well-planned, systematic, methodical, and structural approach.

The responsibilities indicated by the chart are in no way exhaustive and are intended as a possible direction for the classroom teacher in identifying additional responsibilities.

The teaching obligations of the classroom teacher and the music specialist are quite distinct. Both obligations are so distinct that the musical aspects derived therefrom may make a unique contribution to the total educational opportunities offered children. This means that two distinct and unique facets of music must be clearly discernible in the elementary school. One facet is from a cultural point of view, the other from the structural or specialized aspect of music itself.

In connection with this discussion of the roles of the music specialist and the education specialist in the elementary school, it is important to realize that in many Oregon schools these are one and the same person. This places the whole responsibility for music education on the classroom teacher and also simplifies the process of integration.

Much emphasis in the past has been placed upon cooperation between a "generalist" and a "specialist" as a means of facilitating correlation activities. Mere correlation or "generalist" versus "specialist" organizational patterns are neither advocated nor an acceptable substitute for a cohesive music program from a cultural point of view. The classroom teacher is not merely a "generalist" but a true specialist who carries primary responsibility for the teaching of music from the cultural point of view. This is a responsibility imposed by the very nature of a unique teaching assignment at the elementary level which deals with the specialized concerns of the unification of many areas of knowledge. This is a highly specialized aspect of teaching and is generally distinct from teaching which is done in a single subject area such as music. This person is therefore referred to as the education specialist because what shall be taught, how shall it be taught, and when shall it be taught are persistent questions concerned with the *total* educational program which are best answered by a specialist in the process of education who sees this total program.

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① Adapted from State Department of Education, *Music Education in Oregon Public Schools*, the Department, Salem, 1960, p. 4.

SUGGESTED TEACHING RESPONSIBILITIES

EDUCATION SPECIALIST	MUSIC SPECIALIST
Development of Musical Pleasure	
Concept that details of musical pleasure vary from one culture to another is developed.	Personal performance opportunities are provided.
Contemporary music which increases the child's pleasure and satisfaction for living in today's world is provided.	Opportunities for hearing others perform are provided.
Development of Musical Skills	
Musical skills may be compared with the development of other art skills. Appreciation skills are evident.	Pitch, tone, rhythm, appreciation, scale, and chordal patterns form part of the skill opportunities.
Development of Creative Capacities	
Music representative of other cultures may elicit response.	Rhythmic response to musical selections prevails.
Instruments of other cultures may be studied.	Composing and improvising opportunities are provided.
Development of a Knowledge of Musical Literature	
Studying, singing, and playing musical selections representative of other cultures are undertaken.	Opportunity for examination of musical forms such as folk songs, chanteys, art songs, and patriotic music is provided.
Development of an Understanding of the Symbols and Vocabulary of Music	
The history and development of musical symbols may be studied.	Simple and more complex musical scales are presented for identification and use.
Development of an Understanding of the Structure of Music	
Predominate musical aspects within cultures, such as rhythm, are identified.	The use of rhythm, tone, and harmony as basic viewpoints of musical structure are provided.
Development of an Understanding of Musical Expression	
Subtle musical expressions are noted.	Opportunity for assessing one's attitude toward personal musical efforts as well as the efforts of others is provided.
Development of an Understanding of Music as it Relates to the Culture from Which it is Derived	
A systematized treatment of the function of music within a culture, such as music in religion or rites of passage, is provided.	Criteria appropriate for musical appreciation are established.
Development of an Understanding of Artistic Processes of Music and the Other Arts	
The concept that the arts result from man's intent to express ideas is presented. The degree of intellectual involvement between cultures is examined.	The intellectual aspects of artistic endeavor in our culture is emphasized. Care is taken to avoid imputing extraneous meanings such as the emotions to the art product. While music is highly expressive, it does not portray emotions; however, each listener may bring his emotions to the art.

Evaluation

Two distinct facets of music are advocated for the elementary school. Each is unique and has distinct contributions to make. One is concerned with the study of cultures and their aesthetic viewpoints, the other with the more specialized study of the structural elements of music. While each is distinct, a unity is discernable through the three concerns of the specialized art areas which are also common to the field of aesthetics. As noted, these three concerns are creation, appreciation, and the evaluation process. These three concerns form a basis for the evaluation of both programs. Growth is measured by the child's involvement which in turn is dependent upon the teacher's assumption of the teaching obligation to present opportunities within the three common concerns.

The evaluation of the music program and the degree of pupil attainment may be through the objectives as follows:

EVALUATION THROUGH THE—

OBJECTIVE	LEARNER	PROGRAM
Creation	**Creation**	**Creation**
The development of musical skills	To what extent has the learner developed musical skills?	Is opportunity provided for the development of musical skills?
The development of creative capacities	What specific creative capacities of children are being developed?	What opportunities are provided for the development of creative capacities?
Appreciation	**Appreciation**	**Appreciation**
The development of musical pleasure	Is musical pleasure a part of the learner's everyday life?	Is opportunity provided for musical pleasure through many sources?
The development of a knowledge of musical literature	To what extent does the learner utilize musical literature?	What opportunity does the music program provide for gaining a knowledge of musical literature?
The development of an understanding of musical expression	Are desirable attitudes toward one's ability in playing and singing apparent?	Are opportunities provided for musical expression in playing and singing?
The development of an understanding of music as it relates to the culture from which it is derived	Are relationships seen between the total art areas?	Is the musical heritage of our culture present in the total music program?
The Evaluation Process	**The Evaluation Process**	**The Evaluation Process**
The development of an understanding of the symbols and vocabulary of music	Does the learner use the vocabulary of music in appropriate situations?	Are varying opportunities provided so children gain an understanding of the symbols and vocabulary of music?
The development of an understanding of the structure of music	Does the learner utilize structural concepts of music appropriate to his age and total musical experiences?	Does the music program reflect the structure of music?

(Evaluation Process continued)

OBJECTIVE	LEARNER	PROGRAM
The development of an understanding of the artistic processes of music and the other arts	How does the learner indicate growth in understanding the arts and the processes of the artist?	Does the total program lead to the development of evaluative criteria?

Added information concerning music education and curriculum may be found in the following State Department of Education publications:

> State Department of Education. *Teaching Oregon's Children: A Handbook for Elementary Teachers,* the Department, Salem, Oregon, 1957, pp. 131-135
>
> State Department of Education. *Music Education in Oregon Public Schools,* the Department, Salem, Oregon, 1960, 169 p.

Another aspect of evaluation is the evaluation of teaching. As noted in the social studies section, this may in part be the degree of conscious acceptance of one's teaching obligation. In music, the obligations are different for the music specialist and the education specialist. The former will provide opportunity for specialized study through the internal structure of the art, the latter opportunity for inquiry as it relates to a culture. It is the relationships which form the keystone of all educational programs, whether the relationships be drawn from a specialized area's internal structure or the relationships between man, his environment, and his artistic pursuits.

Art (Painting, Drawing, Crafts)

Education of the child, rather than a tangible product, is the most important result of art experiences. Since the primary concern is with the growth of the child, his creative expression should be considered in relation to his total development. Each child is unique in the degree of his development of emotional stability, motor coordination, social maturity, and creative abilities and attitudes. For this reason, opportunities in the use of appropriate materials for a continued growth of expression, consistent with each child's own capacities and interests, are essential.

In emphasizing social development through group activity, the importance of expression through unique, individual, or solitary experience must not be neglected. Both are essential to our educational philosophy. It is important to remember that in the art program, children need both group experiences and individual experiences.

All children seem to develop gradually in their art expression through a series of recognizable stages of growth, with certain basic characteristics typical of each level with variable limits. A teacher should become familiar with the reasons for these progressive changes in the qualities of children's expression at each stage in order to provide wise guidance, appropriate materials, and sound evaluations.

The teacher should be aware of and sensitive to creativity in each child, in whatever form it emerges. He should encourage and guide the child's development without dominating the child's treatment of his own ideas, or without imposing adult standards or any foreign concepts.

The art environment should be conducive to the creative spirit and designed to meet the developmental needs of each child.

Art is an integral part of a socialized program of education and is, therefore, not usually taught as an isolated subject. Instead, most skills and techniques should be developed as the need for them arises. A variety of experiences with different art media is necessary to a well-balanced art program. Such a program calls for good planning—the complete process from the pupil-teacher planning to the cleanup and evaluation must be organized in the teacher's mind. At the same time it must be recognized that art education is largely a creative process and, from this point of view is individual.

Scope

Art experiences in the elementary school should help each child to:

- Increase his sensitivity toward beauty in the environment, relating his work in art to everyday living experiences.
- Gain some knowledge of the history of art and artists.
- Express and communicate feelings, ideas, and concepts through various art media.
- Realize increasing pleasure and satisfaction in both creative and appreciative experiences.
- Develop imagination, originality, and inventiveness, commensurate with his ability, in art activities.
- Find an emotional release through art experiences.

Content

Art education as an outcome in human understanding and behavior is a feeling, a spirit, and an ability to see imaginatively. It is the ability to respond to beauty that is heard, seen, and felt. It is the ability to understand and appreciate the beauty of nature, architecture, music, art, drama. It is gaining a meaning for one's self as well as some understanding of the artist's purpose. It is a way of communication. It is learning what one may do with a media and the skills and patience needed to develop it. It is a way of thinking and of self-discipline. It is the use of technique and skill.

Appreciation develops as one gains some skill and understanding. In a very deep sense, it is a part of all creativity for it encompasses appreciation for the material, the artist, and the skill of the artist in portraying his story.

Art education has a unique role in elementary education in raising the level of a child's sensitivity to the world around him.

Much of the world around us, both past and present, can be better understood with some understanding of art and the artist.

ART HAS BEEN AN INTEGRAL PART OF MAN'S EXPERIENCE SINCE THE BEGINNING OF TIME . . .

In caves in Lascaux, France, there are paintings which were made over 20 thousand years ago . . .

Much can be learned of the early civilization of Eygpt—China—Greece—because of the art which has come down to us . . .

Thus, through art man gains some understandings; he communicates with the past in social studies.

ART HAS SERVED MAN FOR MANY GENERATIONS FOR MANY PURPOSES AND . . .

WILL UNDOUBTEDLY CONTINUE TO DO SO UNTIL THE END OF TIME.

ART IS EVERYWHERE . . .

IT IS IN WHAT IS SEEN . . . WHAT IS HEARD . . . WHAT IS TOUCHED . . .

It is a way of making life more pleasing.

IT IS AN ATTITUDE, A PHILOSOPHY, A STATE OF MIND . . .

It is a way of life. If creative thinking permeates man's every activity, little seems impossible. Life, with creativity at its core, can become a never-ending challenge, an adventure, and an uplifting influence.

IT IS A UNIVERSAL WAY OF COMMUNICATING . . .

No language barriers keep one from understanding a painting by Van Gogh, El Greco, Rembrandt. As one stands in a well-planned park in Copenhagen or uses a chair designed in Sweden, he needs no verbal explanation.

IT IS INVENTIVENESS . . . IMAGINATION . . . FREEDOM . . .

It is finding new uses for old material and common uses for new materials. . . . It is contemplation, ideas, dreams, wonder.

IT IS RECEPTIVENESS TO BEAUTY . . . IT IS BEING ALERT . . .

It is enjoying a design. It is walking down a city street and seeing the myriad of colors, the shadows cast by the sun, or the gossamer beauty of light through the mist. It is remembering beauty. It is feeling—the pulse of the world, the shape of a spoon, the texture of fabric, the motion of wheels, the sound of machinery, the laughter of a child.

CHILDREN NEED HELP TO MORE FULLY APPRECIATE THE WORLD OF NATURE. IN OREGON THERE IS MUCH OF NATURE TO SEE—TO HEAR—TO FEEL—TO APPRECIATE WITH ALL THE SENSES . . .

- The coast—
  - shapes of shells
  - textures of rocks
  - colors of sea life
  - roar of the ocean
- The mountains—
  - dramatic trees
  - mountain flowers
  - rushing streams
  - fragrance of pines
  - whispering winds
- The valley—
  - spring blossoms
  - color of sunsets
  - lush fields of grain
  - rain at night on city streets

EVERYWHERE, THERE IS MUCH TO BE ENJOYED, APPRECIATED . . .

- Patterns
- Shadows
- Textures
- Reflections

THE LIVES OF CHILDREN ARE ENRICHED THROUGH THE DEVELOPMENT OF A HEIGHTENED SECURITY TOWARD THE WORLD OF IMAGINATION AND FANTASY . . . THIS "OTHER" WORLD THAT HAS LONG BEEN A MOTIVATION FOR . . .

- Artists
  - Klee
  - Van Gogh
  - Reynolds
  - Grant Wood
- Poets
  - Fyleman
  - Stevenson
  - Browning
  - Wordsworth
- Music . . . the dance
  - Foster
  - Copeland
  - Stravinsky
  - Martha Graham

IMPORTANT, TOO, IS THE GROWING INTEREST IN AND A SYMPATHY TOWARD PEOPLE . . . THINKING . . . MOVING . . . INVENTIVE PEOPLE . . . AN AWARENESS OF

- The feelings and emotions of people
- The physical characteristics of people
- Differences and similarities of people around the world
- The way people live, what they eat, what they think, how they dress
- The contributions of all peoples

HELP THE CHILD TO BE MORE AWARE OF ALL HIS SENSES, NOT ONLY THOSE OF SIGHT AND TOUCH BUT

Sounds
- children running
- rain on the roof tops
- machinery
- night insects
- wind in the treetops
- the delivery truck
- frogs in the spring

Tastes
- familiar foods
- sour
- sweet
- bitter

Smells
- flowers
- good earth
- bread baking
- train
- fishing fleet

NEW FEELINGS, SOME APPRECIATIONS, AND THE DEVELOPMENT OF SOME SKILLS—CHILDREN NEED ALL OF THESE . . .

Children also need an opportunity to participate in experimenting with color, form, material, and design and some experiences in exploring a medium, a color, or a form in some depth. Children should have freedom to experiment, but education is more than experimentation. It is also experiences in depth.

Children of all ages should make use of many media. Recognition should be made of the degree of skill and understanding a child may have when using materials.

The first time a medium is introduced, its use will be simple, perhaps even primitive. When the medium has been used several times and the artist learns more of the skills needed or the possibilities of the material, the product will be more sophisticated and perhaps more complicated. This process is referred to as maturity when relating to art education.

It is desirable that each child should have an opportunity at some time in his elementary school experience to develop skill with some medium to some depth. In so doing, he gains emotional satisfaction, knowledge of a medium, and intellectual stimulation.

Evaluation

The results of children's art activities can be evaluated only in terms of the art experience and its importance to the child. The display of each child's works sometime during the year is a measure of the teacher's sincerity and understanding since in art education no good or bad prevails.

The variety of media used is a measure of the breadth of the art program, and the growth of the children in terms of self-competence through success is the measure of its depth. As the teacher stimulates children to experiment and to participate in many art experiences, the following questions should receive positive answers:

1. Am I supplying ideas only when necessary?
2. Does each child feel that his work is accepted and appreciated though the work of children may differ greatly?
3. Do children have opportunities to develop appreciation of other's work?
4. Do children have the chance to see and talk about beauty?
5. Are children gaining skill in the use of a variety of media?
6. Are children being helped to develop a discriminating taste regarding art education?
7. Are children developing greater sensitivity in the use of color?
8. Have children discovered ways of learning to work with others as well as working alone?
9. Have children gained greater appreciation of the beauty about them?
10. Do children express pleasure and satisfaction in their own creative expression?

In art education a child should have many opportunities to—

- solve problems.
- develop ideas.
- experiment and explore.
- cooperate and share.
- enjoy the work of others.
- use suitable materials.
- understand and appreciate both self and material.
- find success.
- learn to cope with failure and discouragement.
- set goals for himself.
- make choices and learn to live with them.
- be more observant.
- evaluate.
- discover a medium with which to express himself well.

Additional information about art education may be found in the following State Department of Education publications:

State Department of Education. *Art Education in Oregon Elementary Schools*, the Department, Salem, Oregon, 1958, 95 pp.

State Department of Education. *Teaching Oregon's Children: A Handbook for Elementary Teachers*, the Department, Salem, Oregon, 1957, pp. 135-138

Drama

Dramatics enriches the elementary school program and the child who participates. In drama there are opportunities for participants to make choices, to show initiative, to search for a better way, and to learn appreciation of other peoples. Opportunities for participants to develop more insight into others and to know others who are different from themselves lie in the process of dramatizing. To play the part of a beggar, a king, a Chinese scholar, a slave, or perhaps Jeanne D'Arc and to experience the innermost thoughts and feelings of the oppressor as well as the oppressed, the humble as well as the great, the loved as well as the rejected, may be a beginning toward developing sensitivity which needs to be nourished in many pupils. This is a form of appreciation.

The study of drama helps children to develop a respect for others as well as to increase a sense of respect for themselves. Participation in drama helps the child to learn to see himself in relation to other people through a role he is playing. It gives him opportunities to cooperate with others. He gains appreciation of the story and the power of the drama. Drama may help the shy child find a vehicle for communication; participation and cooperation may be entered into without having attention thrown upon himself. It helps the too aggressive child to see the results of oppression through play. This is a dramatic opportunity for teachers to draw out whatever gift a child may bring to a group and to develop appreciations and respect for other people.

Creative Dramatics

Creative dramatics takes many forms. Pantomime, rhythms, puppetry, shadow plays, skits, and dialogues are but a few. Creative dramatics moves its participants into spontaneous, enjoyable experiences, and into the sharing of stories, viewpoints, and ideas. It is an educational type of drama which invites and brings every member into a group. It is concerned with understanding, feeling, reacting, and human beings. Its values are aimed at the actor not the audience.

Children's Theater

Children's theater is a form of drama particularly suited to the child talented in the art of acting. It has as its goal a finished product for an audience. In order to achieve this goal, the actor perfects a role in a predesignated setting and in a predesignated manner. It is a technical area of study in depth of drama which may come out of the experiences of some children in creative dramatics. It has limited use in an elementary school but it does provide an outlet for children with particular talents in this field.

Great Drama

The study of great plays and playwrights has only an occasional place in the elementary school program. When opportunities arise to see a dramatic production of a suitable classical or modern great play through civic productions, television, or repertory company, children's understanding and appreciation of an art may be furthered by seeing the production.

Appreciation

Appreciation in any creative endeavor is in the point of view of the participant. One appreciates the process, the material, or the skill of the creator. Appreciation of the product is an entirely different aspect of appreciation. Both aspects are important and neither should be neglected.

Literature

An interest in stories seems to be an inherent characteristic of mankind. Peoples of every culture have told and retold their tales. Long before writing of symbols was known, there was an "accumulation of tales and imaginings and philosophies, many of them handed down orally through the generations . . ."①

> Almost a thousand years before the beginning of the Christian era a man celebrated to this day for his wisdom observed that 'of the making of many books there is no end.' How anyone could have remarked on such a condition of things when still every book—each single one—had to be laboriously copied out by hand, or perhaps even incised on clay or stone tablets or ornamental scrolls, seems to us a bit droll.②

Literature specifically written for children is of recent innovation but even before this occurred there were stories and tales enjoyed by children, stories which seemed to have been created just for their pleasure.

Introducing children to literature and sharing this heritage with children is a responsibility shared by the home and school. The child should be introduced to literature early in life. Joy and interest in literature is learned by children from the adults in their world, adults who likewise have this sense of delight in literature.

Literature is a heritage each child has a right to know and share. Through the literature of the ages as well as the literature of contemporary cultures, the child can learn to know and appreciate others—their joys, sorrows, difficulties, values, and beliefs.

Literature, because of its very nature, is a unifying force for the total language arts program. Further, it can enrich all curriculum areas. Because literature is so closely related to people, a study of any culture is enriched by relating the study of some of a culture's literature with more formal inquiry into a particular culture.

Although literature can bring meaning to the content areas and can serve as an integrating force, literature should be a part of the educational program because of its own intrinsic value. Prose or poetry, imaginative story, historical tale, legend or adventure story—all have an intrinsic joy-giving quality that children have a right to discover and hold throughout life.

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① James C. MacCampbell, *Readings in the Language Arts in the Elementary School*, D. C. Heath and Co., Boston, 1964, p. 333.
② *Ibid.*, p. 332.

Dance

Creative movement and dance is an artistic expression. It cuts across many areas and provides a means for each child to express personal meanings. Involvement and self-identification essential to learning in an art area are provided through the dance medium. Dance is a way the child symbolizes an artistic thought. The child's ideas are expressed by movement in time and space.

The child's artistic ideas may be revealed through dance expression. This creative expression provides an opportunity for the child to become meaningfully involved with other areas of the curriculum. The inspiration vehicle may be a literary classic; an event in the child's life, real or imagined; an historic occasion; a story from children's contemporary literature; or an interpretation of sound and music.

The child's involvement in creative dance and movement assists the teacher in becoming more aware of the way the child sees himself. Creative expression may reveal the child's understanding, feeling, and possible interest in the storehouse of knowledge. The teacher often discovers the child's sensitivity to past and present experiences through reactions in movement.

Creative Dance and Movement Opportunities

Symbolization of thought
Sharing ideas
Learning to know one's self better
Involvement in creative problems
Expression of artistic meanings of one's life
Expression of an array of moods from pleasant to angry
Making decisions concerning essentials for expression
Communication of the language of movement
Release of inhibitions.

The student's growth through dance experience is greatly affected by the teacher's knowledge of the elements of dance and movement. Dance encourages individuality through symbolization, responses, and interpretations. All expressions are accepted by the teacher who involves the student by beginning dance experiences simply, by letting the student choose to become involved, and by expecting no explanation concerning the meaning of the student's movement unless the child volunteers an explanation. The teacher includes dance in the daily life of the student by encouraging the child to take advantage of all possible dance experiences such as viewing many dance forms through all media and through participation in school-community programs.

Interpretative or creative movement may reveal how the child thinks of himself and how he perceives relationships. The child identifies with an idea and may become highly involved in the expression or symbolization of an artistic idea. For example, when exploring life in the southern hemisphere, the child can become more fully aware of what happened to the people, how physical barriers made life more difficult, and how rhythm and music contributed to life in the development of countries by expressing ideas, thoughts, and feeling through movement. Through dance experience the child becomes more aware of himself and his world.

Architecture

Architecture is included as one of the arts in this section of the Guide although it should be noted that in this area emphasis is given to the utilitarian aspect of this medium of expression.

> Architecture is the art of organizing space for shelter. . . . A building which is no more than a shelter cannot automatically qualify as a work of art. Structure becomes architecture only when created by those sensitive to its possibilities of visual appeal. It becomes art only when created by those responsive to the proportioning of a wall, the relating of one wall to another, the interaction of one mass or space with another, the coordination of parts within a whole.①

The concern for architecture at the elementary level is from the same point of view as with the other arts. All the arts are interrelated as well as related to the culture from which they are derived. When the classroom specialist is planning learning opportunities for children, it is this teacher's responsibility to provide as many viewing points as possible. Because architecture may be treated as an art and as a contributing area of aesthetics, it is suggested that inquiry be directed toward the relationship of the architecture of various cultures through the social studies program.

It is not uncommon to see architecture included in elementary school curriculums. Many teachers have incorporated architecture in social studies units through such themes as "Housing around the World." Such studies are quite successful at the elementary level and provide children another way of examining relationships. Architecture may also be included in geographic studies. Whether the area is hot, humid, rainy, or covered with snow is a consideration not merely for shelter, but for achitecture as an art as well. Another relationship may be found in anthropology. Family groupings, the relationships of people, and the level of technology in terms of the materials used are concerns not only from the utilitarian shelter aspect, but for architecture as an art. Teachers and students will undoubtedly identify numerous relationships.

As a category or guide for seeking further knowledge through relationships, architecture may make a contribution to an understanding of the culture as well as the other arts. The place to begin an understanding of these relationships is with the child.

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① Wallace S. Baldinger. *The Visual Arts*, Holt, Rinehart, and Winston, Inc., 1960, p. 77.

Sculpture

Sculpture as an interrelated part of the fine arts and as an artistic phenomenon related to a culture should receive consideration when planning the instructional arts program for elementary school children. An examination of a sculptor's art as well as his artistic processes is not too advanced to be treated at this level. It is possible, within a balanced program of the arts, to develop a sensitivity to sculpture as well as to the other arts. Likewise, through the study of other cultures, sensitivity to varying art products and processes may be developed.

The development of appreciation often begins at the level of enjoyment. The learner's readiness for enjoyment of the fine arts may be identified by the teacher in the same manner as in those areas generally referred to as the academic areas. The early fine arts enjoyment level is characterized by a lack of criteria for appreciation. The teacher's obligation is to provide children an opportunity to view many examples of sculpture not only from their own culture but from those representative of many other cultures. Children should be encouraged to discuss their reaction to the art and to experience the creative aspect of sculpturing. It is through the creative aspect that the child may develop criteria which lead to the development of appreciation.

How an artist conceptualizes the entire mass of materials should be a part of the art opportunities the teacher provides. In the study of sculpture, the artist's conceptualization may be realized through the intellectual process of abstracting the mass into a piece of art before beginning the actual sculpturing. For example, a specific artistic process of sculpture is to view the mass as if the art product were already within the material, waiting to be revealed by the sculptor. Such an approach may be through contemplation. This requires considerable understanding and patience as well as insight into the processes used by sculptors.

The manner in which an artist approaches material reveals cultural variations which are the result of the sum total of all aspects of the culture. The education specialist at the elementary level has a responsibility to provide children with an opportunity to develop an awareness of the artistic processes within cultures by creation with the cultures' materials. Also, this specialist has a responsibility to consciously direct opportunities to the appreciative level and to attain evaluation of the art product by the criteria appropriate to the culture. If sculpture be a process of abstracting the mass to reveal and unfold the artistic idea, the criteria for evaluation would be quite different from that used where the processes of the sculptor are conceived as an attack upon the material.

To know ". . . the feel of form emerging out of mass, because the very process recurs at his hands . . ."① is to know the sculptor and his art.

Evaluation

TEACHING

The arts section of this Guide has presented seven art areas for consideration at the elementary level although it is realized that additional arts such as photography and motion pictures may be advocated. No claim has been made that all areas of learning or all areas of the arts are presented herein. Furthermore, it must be understood that classes in architecture and sculpture are not advocated *per se*. These areas as well as all the arts are intended to be seen in relation to the behavior of man within a culture. The evaluation of the teaching of this area is in part by the unity of the arts and the opportunities systematically planned for children to inquire from these art viewpoints. Man is creative, appreciative, and evaluative and all the arts are concerned with these three areas. However, how one creates, appreciates, and evaluates are major aesthetic questions. The key to these questions may be found within the culture from which the arts are delivered.

LEARNING

The evaluation of aesthetic learnings includes the same major considerations noted throughout this section. These are the creative, appreciative, and evaluative aspects found not only within each contributing area but within the total art area. It is desirable for each child to become interested in at least one art area so that he may experience the process of artistic creation. Some factors within our culture are not the most conducive to the development of artistic processes, and encouragement toward artistic sensitivity needs to be nurtured through appropriate activities. Evaluation of the child's creative ability should not be through negative judgments, grades, or other formal procedures. How and why the child creates his art are aesthetic questions which defy verbal evaluation, for if all art could be verbalized no need would exist for the art.

In the appreciative realm, it is possible to observe the development of sensitivity to the arts. This may be noted through the child's attitudes toward his own work as well as the works of others regardless of the culture.

The evaluative aspect of the arts is based upon numerous cultural factors which lead to the development of evaluative criteria. *When children are able to substantiate positions regarding an art product or process, teachers will know that considerable insight has been gained into the total aesthetic realm.*

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① *Ibid.*, p. 124.

Social Studies

The presentation of elementary social studies in this section of the Guide is a departure from the traditional social studies point of view which has tended to emphasize historical and geographical aspects. It indicates a possible direction designed to facilitate a more comprehensive approach than has commonly been followed.

Scope

The scope of the social studies is realized through content and in this Guide is:

- Participation in cultural, social, and civic activities and opportunities for the development of appropriate attitudes and appreciations.
- Development of skills needed in social studies.
- Acquisition of social studies facts.
- Mastery of inquiry skills appropriate to the social studies.
- Development, application, and transfer of carefully defined concepts and generalizations.

Suggested Mode of Inquiry

The social studies, unlike some areas of study such as mathematics, is an aggregate of eight separate contributories generally referred to as disciplines. These are geography, history, psychology, philosophy, economics, political science, anthropology, and sociology. Within each of these contributing areas, a mode of inquiry or method of examination prevails from which concepts and generalizations are drawn. While the social studies involves all eight contributing disciplines, for teaching purposes they are considered as a single cohesive area. (For purposes of advanced specialization or enrichment in depth, one will work in a single discipline and use a more limited mode of inquiry than that which is advocated for the social studies field.)

The mode or method of inquiry used in teaching the social studies is interdisciplinary. Inquiry in the social studies uses all of the eight contributing disciplines, not separately, but as a combined and cohesive field for inquiring. Therefore, no single contributing discipline operates in isolation of the others, but rather, each makes a vital contribution to the development of generalizations which would otherwise be incomplete. The key factors of inquiry as advocated in this section are the *relationships* of all the disciplines within the social studies to phenomena such as events or situations, and the types of *questions* which are asked. Without the questions and the relationships of all the contributing disciplines brought to bear upon a phenomenon, erroneous or incomplete concepts and generalizations may be formed by the learner. When one major factor is stressed to the extend that generalizations are formed without the use of other viewpoints, deterministic conclusions may be reached. For example, many teachers still use the theory of geographic determinism which has been discarded by geographical scholars. That is, when problems and the study of man are undertaken in the social studies, geographic factors are stressed so strongly that the generalizations reached are formulated from the point of view that geography is responsible for the way in which man lives and works, for what he produces, or what he does not produce. Social studies teaching has often overstressed the geographical or historical factors which represent only two viewpoints of a possible eight. A comprehensive mode of inquiry within social studies is not deterministic from any single or dual point of view, but is characterized by its use of all eight contributing disciplines.

When inquiring into social studies phenomena, a full description of observations is made in terms of the vocabulary appropriate to each contributing discipline and is consistent with the level of the maturity of the learner. The description may be followed by questions, problems, or statements. Social studies inquiry is, therefore, inquiry from all points of view; i.e., geographical, political, anthropological. The importance of using the appropriate vocabulary cannot be overemphasized. It is from the combined points of view that one seeks to discern relationships which contribute to the full understanding of phenomena within the social studies. It is from this total dimension that insights regarding the phenomena are gained or formed which in turn lead to conceptualizations and broad generalizations. Thus, the eight contributing fields of the social studies, when viewed and used as an interrelated whole, can be applied methodically and systematically to phenomena for the purpose of generating new ideas and further knowledge just as a single contributing discipline or other field of inquiry. Inquiry can be taught and facilitated at most levels. It is the responsibility of the teacher who stands at the crucial decision-making point of the teaching act to determine the appropriateness of the phenomena for inquiry, the relevance of materials, and the conformity of the questions and their vocabulary to the readiness of the learner.

Selective Vocabulary

To illustrate the unique vocabulary of each contributing discipline of the social studies, the following examples are presented.① This vocabulary is not intended to be taught directly or in isolation to

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① Some of the examples are adapted from V. Horatio Henry, *New Social Studies Methodology*, Burgess Publishing Co., Minneapolis, Minnesota, 1958, pp. 40-47.

children. It is an illustration to assist teachers in constructing questions to direct inquiry from the point of view of the contributing discipline. While the questions should be expressed in a vocabulary to convey the focus of the discipline, questions and vocabulary should also be consistent with the learner's comprehension.

It should be clearly understood that the following vocabularies are composed of typical or sample words only and in no sense are the lists intended to be complete. Many more appropriate words could be added to each list and would be necessary for effective discussion in the social studies.

GEOGRAPHY

alluvial deposits
basin
climatic zones
continents
deserts
equator
erosion
floods (inundation)
geography
harbors
hills
irrigation
islands
isthmus
lakes
latitude
longitude
map projections
middle latitude
mountain ranges
mouth of rivers
natural resources
oceans
peninsulas
plains
plateaus
ponds
prairies
rain gauge
rain (precipitation)
seasons
temperature
tides
time
torrid zone
tributaries
volcanoes
water sheds
winds

HISTORY

A. D. (Anno Domini)
ancient history
arrested civilizations
century
chronology
civilization
colonies
decade
democracy
dynamic societies
empire
epoch
era
governors
history
mankind
medieval history
millenium
modern history
non-western
pyramids
schisms
B. C. (before Christ)
sources

PSYCHOLOGY

abnormal
acceptance
adjustment
association
attitude
behavior
capacities
emotion
habits
human nature
human personality
image
impulse
insane
insight
instinct
intelligence
maturity
motivation
normal
perception
person
prediction
psychology
reflexes
reinforcement
rejection
self-centered
sensation
social psychology
stimulus
suppression
tendency
tension
thought
value pattern

PHILOSOPHY

a posteriori
a priori
asceticism
being
belief
commitment
deism
divinities
essence
ethics
faith
fatalism
fate
God
honesty
human conduct
ideal
integrity
law
life
logic
mediator
morality
paradise
philosophy
realism
reality
spirit
superstition
theology
thought
time
truth
unity
universe
will

ECONOMICS

analysis
automation
banks
capital
commerce
competition
consumption
demand
depression
distribution
division of labor
economic growth
economics
GNP
income
individualism
industrialism
industry
insurance
interest
investment
labor
loans
manufacture
market
money
natural resources
ownership
possession
price
prosperity
recession
salary
supply
surplus
technology
trade
transportation
wages

POLITICAL SCIENCE

alliance
amendment
appropriations
authority
ballot
bill
bureaucracy
cabinet
committees
communism
Congress
Constitution
democracy
election (political)
emancipation
esprit de corps
facism
foreign policy
government
inalienable rights
individual freedom
influence
laws
legislative
liberty
mission
municipality
nationalism
patriotism
political science
populations
power
precincts
president
referendum
republic
state
Supreme Court
taxes
treaties
veto
vote
weapons

ANTHROPOLOGY

acculturation
ancestral worship
anthropology
archeology
artifacts
breed
ceremonialism
clan
cranial capacity
cultural dynamics
cultural innovation
culture
Darwinism
diffusion
enculturation
ethnology
family
folklore
fossils
implements
initiation group
integration
isolation
language
mammals
nature worship
prestige
primitive law
primitive societies
processes
rites
ritual
sacrifices
sanction
social heritage
social patterns
social structure
social systems
socialization
status
symbolic systems
taboos
universals

SOCIOLOGY

agencies
census
change
class
class systems
communication
conformity
cooperation
culture lag
death rate
density of population
discrimination
elite
family
folklore
follower
group thinking
hierarchy
human relations
individual
institutions
inventions
leader
marriage
mass communication
participation
prejudice
pressure groups
public opinion
race
role
rural
social
social change
social role
society
status
suburban
urban
zone (city)

Structure for Inquiry

As indicated by the vocabulary chart, each discipline generally has a unique vocabulary. Likewise, each discipline has a structure for inquiring. An outline of the structure commonly used for inquiry in anthropology is as follows:①

Environment
Technology
Social Organization
Symbolic Systems
Population
Energy
Unanticipated Events

This scheme provides the anthropologist with a set of categories for inquiring and examining data. From these he seeks the relationships and the interdependencies which bear upon the phenomena being examined. In anthropology, these categories help define, delimit, and direct the questions. It is the questions of a specific focus which lead to the establishment of concepts regarding each category and

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① As interpreted from the lectures of Dr. S. T. Kimball, Columbia University, 1963.

the further questions which give rise to later generalizations regarding interrelationships between categories and their relationships to phenomena.

The structure for social studies inquiry is patterned closely to that used by anthropologists. A schematic outline for social studies is as follows:

Geography
History
Psychology
Philosophy
Economics
Political Science
Anthropology
Sociology

These are the categories which provide the framework and cohesive and systematic field for inquiry. These categories provide the framework for the questions asked. In social studies as in anthropology, concepts related to each category are also established when focused toward phenomena. It is from these concepts that later generalizations relative to social studies phenomena are formed. This scheme provides a methodical and systematic way of observing, thinking, inquiring, and confirming. It is self-correcting and generative of further ideas and knowledge.

Because of burgeoning research and the accompanying explosion of knowledge, it has become humanly impossible for an individual to acquire a body of facts which will remain factual throughout one's lifetime. For this reason learning to inquire, to think, to draw conclusions, and to make inferences has become increasingly important. To learn a systematic way of thinking and inquiring, in the final analysis will be of greater benefit to the learner than the acquisition of encyclopedic information which all too soon becomes the documented account of man's ignorance.

It is clear that a social studies *program* is far more comprehensive than the usual geography or history approach. It is far more than recitation and repetition of factual material. In short, social studies inquiry is a *way of knowing* relationships based upon the inductive processes of thinking through specific categories which leads to formation of concepts and generalizations and their application and transfer to situations to be met by the learner.

Disciplines

DEFINITIONS AND SELECTED CONCEPTS

The State of California invited scholars from each contributing discipline of the social studies to compile the concepts which could contribute "to the social education of all citizens." From that study, the following examples have been extracted for teacher consideration in planning for inclusion of all points of view in a social studies program. They are not intended to be presented or taught to children *per se*, for concepts and generalizations are not taught. It is important for the teacher to recall that in social studies as well as other areas, it is the learner who conceptualizes, has the insights, and makes the generalizations. Examples for teacher use are as follows:

GEOGRAPHY

Geography deals with areal arrangement. Its principal orientation is toward terrestrial space, the earth's surface, where it studies the varying distributional patterns created by nature and man. It seeks to define physical and cultural features found on earth, to show their distribution, to make them understandable by explaining the basic forces or factors underlying the locational patterns of their existence, and to present the more fundamental of their interrelationships. Owing to its dual nature, geography is both a natural and a social science and, as such, serves as an integrating link. As part of its educational responsibility, geography seeks to help students become earth-minded (even universe-minded) and spatially oriented, to build a more useful mental image of the world and its parts, and to develop their sense of space. . . .

> Life on the earth is influenced by the earth's (global) shape, its size, and set of motions. . . .
>
> Weather, climate, and earth crustal movements affect the surface of the earth and cause regional differences in land forms, minerals, drainage, soils, and natural vegetation.
>
> Climate is determined by sunlight, temperature, humidity, precipitation, atmospheric pressure, winds, unequal rates of heating and cooling of land and water surfaces, irregular shape and distribution of land and sea, ocean currents, and mountain systems. . . .
>
> Soil, water, solar energy, and air are the natural resources most indispensable to man. The great source of all activity and life on earth is heat from the sun. . . .
>
> Major climatic regions coincide approximately with major vegetation zones because vegetation is related to climatic conditions. Natural vegetation is a great resource utilized by man. . . .
>
> Man constantly seeks to satisfy his needs for food, clothing, and shelter and his wants; in so doing he tries to adapt, shape, utilize, and exploit the earth to his own ends. Some aspects of the natural environment, however, are not significantly altered or utilized by man. . . .
>
> To exist, man must utilize natural resources. Groups develop ways of adjusting to and controlling the environment in which they exist. Human change and even the whole structure of civilization may depend upon the nature and extent of man's available supply of energy and his ability to control it.
>
> Man's utilization of natural resources is related to his desires and his level of technology. . . .①

HISTORY

History is the record of what has happened to man. It is the effort to grasp the whole of human experience within a chronological framework. History is interpretive, imaginative, and normative. It is the script of human drama and also the drama. . . .

> Space and time form a framework within which all events can be placed. All of man's experience has occurred within a space and time framework; however, the same relationship does not necessarily apply to events as they have occurred in various parts of the world. . . .
>
> The historical past influences the present. The present cannot be adequately understood without knowledge of the past. Life goes on against the intricate tapestry of the past. History does not repeat itself, but events tend to occur in some sort of sequence. Events in nature usually occur uniformly. Human events are predictable but to a lesser extent. . . .
>
> Brotherhood, in the social sense of peaceful co-operation, is one of man's worthiest and earliest historical experiences. Conflict and hostility are also within man's experience. Men of all races have many basic physical similarities. Geographical variations and time variations in man's environments help explain his past behavior and continue to do so.
>
> In the contemporary world historical events have a significance which reaches far beyond the limits of a state or province or the place of their origin. In such circumstances the world-wide relationship of events must be understood. . . .

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① Excerpts quoted from State Central Committee on Social Studies, *Report of the State Central Committee on Social Studies to the California State Curriculum Commission*, California State Department of Education, Sacramento, California, 1961, pp. 17-19.

> Past and present civilizations represent our cultural heritage. The races, cultures, and civilizations in most areas of the world and of most historical periods, beginning with the dawn of recorded history, have made some contributions to the growth of our present civilizations.
>
> Interdependence has been a constant and important factor in human relationships everywhere. . . .
>
> The efforts of people, great material achievements, and important ideas are delineated, assessed, interpreted, and given a relative place by historians.
>
> History demonstrates that mankind has been motivated by morals and ideals and by material wants and needs. The demand for moral standards has persisted throughout man's experience. The ideals of men in all parts of the world and in all ages have been rooted in the value systems of large and small groups. . . .①

PSYCHOLOGY

Psychology is the science of human behavior. It has as its aim the understanding and prediction of behavior. Broadly speaking psychology is concerned with the scientific study of all forms of behavior; e.g., learning, growth and development, thinking, feeling, perceiving, social behavior, personality development, atypical behavior, as well as the physiological processes underlying behavior. . . .

> Behavior is caused and is not its own cause. Each form of behavior exhibited by the individual has a pattern of causes which are multiple, complex, and interrelated. Behavior is not capricious or random. The discovery of causes leads to an understanding of behavior.
>
> Human behavior is purposive and goal-directed. The individual may not always be aware of basic purposes and underlying needs that are influencing his behavior. The study of psychology attempts to bring about a better awareness of the underlying causes of behavior.
>
> Behavior results from the interaction of genetic and environmental factors. Through genetic influences, all individuals have a potentiality for development and learning, yet these genetic factors produce differences among individuals. The character of the physical and social environment promotes or limits the degree of realization of the individual's potentialities. . . .
>
> Individuals differ from one another in personal values, attitudes, personalities, and roles; yet at the same time the members of a group must possess certain common values and characteristics. . . .
>
> Each individual is a member of several social groups, each of which helps to satisfy his needs. The child starts life as a member of a family but soon establishes membership in a school, a neighborhood play group, a church and other groups. As he matures, he extends his membership into a greater variety of groups. . . .
>
> Socialization processes (for example, child-rearing practices) differ markedly in different social classes, groups, and societies. Personality structure and behavior are largely influenced by these practices. Value standards developed by individuals reflect their experiences with such practices as they seek to relate themselves to the group and to satisfy their personal needs. . . .
>
> The behavior of individuals is related to the structure and organization of the group in which they are placed. A range of roles such as leadership, followership, aggression, submission may be exhibited by the same individual in different groups. The "need-satisfying" quality of a group and the member-to-member relationship influence behavior.
>
> For preservation of group identity, a social group resists change through the phenomena of cultural lag and conservatism of members. A social group also changes in various degrees in the light of new conditions to preserve group identity. . . .②

PHILOSOPHY

Philosophy may be regarded as those fundamental beliefs with which an individual attempts to order the universe around himself.

> . . . [philosophy is] concerned with questions, concepts, and valuations germane to the study of man and appraisals of his conduct. . . .
>
> . . . philosophy has an essentially critical role to play in analysis and valuation of concepts and generalizations contributed by the social sciences.
>
> It is the responsibility of philosophy to explore the methodology employed in investigations, the foundations of theorizing, and the criteria of judgments asserted about human affairs and the values which they embody. . . .
>
> . . . [philosophy] has contributions to make to social studies which are being pursued in the spirit of inquiry. Such pursuit, if it is to enlist the students as effective participants, requires the acquirement and employment of intellectual skills requisite for following arguments, making ideas clear, and submitting claims to tests. Social studies conducted to develop the spirit of inquiry and the powers to participate in inquiry must bring these skills into play.
>
> Philosophy contributes to social studies in the tools it makes available—logic, scientific method, and ethical analysis.
>
> . . . [philosophy] contributes also in the areas of social philosophy, political philosophy, and philosophy of history. . . .③

ECONOMICS

Economics is the social science that analyzes the data, issues, and public policies connected with the production, distribution, and consumption of wealth and income. It is a seamless web of reasoning that begins with the facts of scarcity and unlimited wants and proceeds through specialized production, interdependence, exchange, markets, price, costs, and public policy. . . .

> Economic welfare is a goal in most, if not all, modern economic societies. It is believed to be beneficial for people to have more economic goods rather than less, that poverty *per se* is not a desirable state of affairs. . . .
>
> The essence of 'economy' lies in making wise choices in economic matters, such as between saving and spending, the object of expenditure, the kind of investment, and the choice of job. . . .
>
> High per capita income is due to high productivity of labor. The total income of a society is its total output of goods. It follows that if American labor is ten times as productive as foreign labor, American wages can be ten times as high as abroad without interfering with the ability of American industry to sell its products in world markets. High wages thus rest on high productivity, not a tariff. . . .
>
> Basic in economic organization is the task of devising a means of securing effective co-operation among the specialized producers in the system. The economic system must determine how much of each commodity and service to produce and how each unit of each resource is to be allocated to its most important use. . . .
>
> A market price system works best when both buyers and sellers are highly competitive, well informed, and able and disposed to act on their information (competition—knowledge—mobility). It follows that the free enterprise system is supported and strengthened by government action designed to keep markets free (antitrust policy), buyers and sellers informed (prohibition of false advertising and laws against misrepresentation) and mobile. At the very minimum, government must maintain order and justice, protect property, enforce contracts, and provide a money system in order for free enterprise to flourish. . . .

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① *Ibid.*, pp. 20-22.
② *Ibid.*, pp. 33-35.
③ *Ibid.*, pp. 39-40.

A free society provides opportunity and incentives for the individual to hazard what he owns in an effort to make a profit. . . .

In a competitive system, the prices paid for productive services also serve to divide the total output of goods among those responsible for their production. Thus, the wages of workers, the dividends of investors, and the rents of landlords all provide the money incomes which determine the size of each individual's claim to actual goods and services.

In a competitive market, each productive agent tends to receive as income a sum equal to the value of his productive contribution to society. The greater the demand of the public for the particular service or product and the smaller the supply, the larger the income. Those possessing the greatest skills demanded by the public tend to receive the highest income. . . .①

POLITICAL SCIENCE

Political science is the study of government—of the theory and practice of man in organizing and controlling the power needed to formulate public policy and administer the public services. . . .

Government is but one of the institutions serving society. The state or government is essential to civilization and yet it cannot do the whole job by itself. Many human needs can best be met by the home, the church, the press, and private business.

Two essential functions of government are to serve and to regulate in the public interest. The ultimate responsibilities of government fall into five big fields: (a) external security, (b) internal order, (c) justice, (d) services essential to the general welfare, and (e) under democracy, freedom. . . .

In a democracy, government is the servant of the people; people are not the servants of government. Government is by right an institution made by man for man. The source of authority resides in the people. . . .

Man develops his fullest potential in a climate of freedom. Much of civilization's advance can be traced to man's search for a larger measure of freedom. For the truly civilized man, no amount of material wealth can ever compensate for the lack of freedom. Since freedom allows individuals to develop their creative talents, a society benefits when its individual members are relatively free. . . .

Civil liberty—freedom of thought, speech, press, worship, petition, and association—constitutes the central citadel of human freedom. With it, all other kinds of freedom become possible; without it, none of them can have any reality. . . .

The well-being of the state is dependent upon educating its citizens for participation in life's activities.

A citizen can do his part in making democracy work only if he has the information essential to intelligent reflection on the issues of the day. Such information can be provided best by a free and responsible press.

The citizen has civic responsibilities as well as rights. . . .②

ANTHROPOLOGY

Anthropology is the comparative study of man, concerned both with his evolution and present characteristics as a biological form and also with his various modes of organizing group life and of coping with his natural environments via cultural means. . . .

Although man is a member of the animal kingdom, he differs profoundly from all other creatures by virtue of his development of culture. Culture is a product of man's exclusive capacity to comprehend and communicate symbolically (e.g., via language). Culture is socially learned and consists of the knowledge, beliefs, and values which human groups have invented to establish rules of group life and methods of adjusting to and exploiting the natural environment. . . .

No modern society has invented more than a small fraction of its present cultural heritage—each owes tremendous debts to cultural inventors of other times and other places. . . .

Some nine or ten thousand years ago men living around the east end of the Mediterranean Sea first conceived the idea of domesticating food plants and animals, thus beginning the Neolithic ('New Stone') Age. This control of the food supply constituted one of the most far-reaching revolutions in human history. . . .

No real break exists between the cultures of the ancient Neolithic farmers and the great civilizations of today. But the rate of cultural inventions has accelerated as has the speed with which new knowledge spreads around the world. . . .

The culture under which a person is reared exerts a powerful influence on him throughout his life.

Since the culture of an individual's own society becomes thoroughly instilled in his innermost personality, he feels, thinks, and acts according to its imperatives not only in order to be accepted by his fellows but to be able to maintain a good opinion of himself. The world into which every individual must fit is the world as defined by his culture.

Language is an essential, effective, and exclusively human tool for the invention and transmission of culture. Art, music, and other symbolic and aesthetic expressions are also effective means of transmitting culture. . . .

Anthropologists have been unable to discover scientifically objective grounds for evaluating cultures as absolutely inferior or superior to one another. . . .

All human beings, since long before the beginning of written history, have been members of a single biological species, *Homo sapiens*. For convenience of description and classification, anthropologists divide the species into 'races,' aggregates of men possessing more or less distinctive observable *physical* traits which distinguish them from other aggregates of men. These physical traits, however, merge imperceptibly into one another so that most men are intermediate between two or more types. . . .

Anthropologists distinguish three main stocks or extreme limits of human biological variability: Mongoloids, Caucasoids, and Negroids. The great bulk of humanity is intermediate between the extremes. . . .

Human beings, regardless of their racial or ethnic backgrounds, are nearly all capable of participating in and making contributions to any culture.

The environment in which a person lives and his opportunities for personal growth have profound effects upon the development of every individual. . . .

So-called 'race problems' are cultural problems arising from conflicts between ethnic groups or an ethnic group and the majority population. If the positive social value of cultural diversity is recognized, ethnic differences can add to the general richness of life. . . .③

SOCIOLOGY

Sociology is a scientific study of the social relations men develop in their interaction with one another. Sociologists analyze the basic structures and functions of societies and of associations and groups within societies to discover how they became organized, to identify the conditions under which they become disorganized, and to predict the conditions for reorganization. . . .

The work of society is done through organized groups. Group membership requires that individuals undertake varied roles in society, and this means that they must assume varied responsibilities, rights, and opportunities. Groups differ because of their purposes, their institutions, heritage, and location. . . .

Communication is basic to culture and to groups. Individuals and groups communicate in many ways—language is only one way. . . .

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① *Ibid.*, pp. 26-29.
② *Ibid.*, pp. 23-26.
③ *Ibid.*, pp. 30-33.

The expression of man's biological drives is influenced by his social environment.

The realization of self is modified by contacts with others.

. . .

An established society, association, or social group gradually develops patterns of learned behavior accepted by and common to its membership. These patterns, together with their accumulated institutions and artifacts, make up the cultural 'way of life' of the society and its associations and groups. . . .

Many individual, social, and physical problems are influenced by changes in population. These problems may involve considerations of old age, youth, migration, war, housing, famine, employment, government, transportation, recreational activities, education, vocational opportunities, sanitation, social controls, living habits, and medical facilities.

National migration develops cultural diversity within a group and cultural diffusion among groups. . . .

Human beings in interaction continuously organize and join (association) groups and 'societies.' Groups tend to dissolve in time (disassociation), losing members to new groups. . . .

Members of families and other more intimately related social groups tend to work together (co-operation) in carrying out the necessary functions of community living and attaining common goals. . . .

Persons and groups who become rivals of other groups and group members (competition) may compete as well as co-operate. . . .

. . . [Assimilation is] the process through which persons and groups migrating to a new environment lose the modes of behavior already acquired and gradually take on those of the new society. . . .

Societies require a system of social control in order to survive. Social control—almost entirely in primitive societies and partially at least in all societies—is secured by uncodified rules of behavior (mores and values). . . .①

Generalizations: A Synthesis

Concentrated inquiry into each of the contributing social studies disciplines has led to the concepts noted in the preceding section. These are adult concepts intended for use by the teacher.

When one uses all the contributing disciplines for inquiry, a synthesis② of individual concepts results in the formation of larger generalizations. Illustrative of this synthesis are the following adult social studies generalizations. Again it is stressed that these concepts and generalizations are not to be taught directly since it is the individual who conceptualizes and generalizes.

In the foregoing generalizations considerable similarity can be noted among a number of the ideas presented. These similarities are not necessarily duplications within the social sciences since each discipline offers its own emphasis and setting for the ideas presented. Rather these notations indicate the totality of the social sciences. They also suggest the possibility of developing from the entire list of generalizations a synthesis of the main and recurring ideas. Such a synthesis has been undertaken and is presented in the 18 points that follow:

"1. Man's comprehension of the present and his wisdom in planning for the future depend upon his understanding of the events of the past and of the various forces and agencies in society that influence the present.

"2. Change is a condition of human society; societies rise and fall; value systems improve or deteriorate; the tempo of change varies with cultures and periods of history.

"3. Through all time and in all regions of the world, man has worked to meet common basic human needs and to satisfy common human desires and aspirations.

"4. People of all races, religions, and cultures have contributed to the cultural heritage. Modern society owes a debt to cultural inventors of others places and times.

"5. Interdependence is a constant factor in human relationships. The realization of self develops through contact with others. Social groupings of all kinds develop as a means of group co-operation in meeting individual and societal needs.

"6. The culture under which an individual is reared and the social groups to which he belongs exert great influence on his ways of perceiving, thinking, feeling, and acting.

"7. In the United States democracy is dependent on the process of free inquiry; this process provides for defining the problem, seeking data, using the scientific method in collecting evidence, restating the problem in terms of its interrelationships, arriving at a principle that is applicable, and applying the principle in the solution of the problem.

"8. The basic substance of a society is rooted in its values; assessing the nature of its values is the most persistent and important problem faced by human beings.

"9. Man must make choices based on economic knowledge, scientific comparison, analytic judgment, and his value system concerning how he will use the resources of the world.

"10. The work of society is carried out through organized groups; group membership involves opportunities, responsibilities, and the development of leadership.

"11. Organized group life of all types must act in accordance with established rules of social relationships and a system of social controls.

"12. All nations of the modern world are part of a global interdependent system of economic, social, cultural, and political life.

"13. Democracy is based on such beliefs as the integrity of man, the dignity of the individual, equality of opportunity, man's rationality, man's morality, man's ability to govern himself and to solve his problems co-operatively.

"14. Many people believe that physically man is the product of the same biological evolution as the rest of the animal kingdom. Man is in many ways similar to other animals, but a most important difference exists as a result of man's rationality and in the body of knowledge, beliefs, and values that constitute man's culture.

"15. All human beings are of one biological species within which occur negligible variations.

"16. Environment affects man's way of living, and man, in turn, modifies his environment.

"17. One of the factors affecting man's mode of life is his natural environment. Weather and climate and regional differences in land forms, soils, drainage, and natural vegetation largely influence the relative density of population in the various regions of the world.

"18. Because man must use natural resources to survive, the distribution and use of these resources affect where he lives on the earth's surface and to some extent how well he lives. The level of his technology affects how he produces, exchanges, transports, and consumes his goods."③

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① *Ibid.*, pp. 36-39.

② State Central Committee on Social Studies, *Report of the State Central Committee on Social Studies to the California State Curriculum Commission*, California State Department of Education, 1961, pp. 40-42.

③ *Ibid.*, pp. 40-42.

Social Studies as Related to Objectives

The eight contributing social studies disciplines form the basis for the social studies program. By systematic and methodical inquiry, provided through their arbitrary structure into categories, concepts and generalizations may be formed. In addition to concepts and generalizations, the social studies program also contributes to the development of understandings, attitudes, and skills. These understandings, attitudes, and skills may be closely related to the values of our society, the function of the school, and the objectives of an educational program. (For a review of values held by our society, the teacher is referred to the section on values.) The following chart is illustrative of social studies understandings, attitudes, and skills and indicates how they may be related to the objectives of education as valued in our society. The skills indicated on the chart are but one type of skill, those related to participation in the democratic processes.

No claim is made that the understandings, attitudes, and skills of social studies as indicated on the chart are all inclusive. Situations will vary in local communities and teachers are encouraged to assess the comprehension of these areas in relation to the larger social context found within the United States.

RELATION OF SOCIAL STUDIES UNDERSTANDINGS, ATTITUDES, AND SKILLS TO EDUCATIONAL OBJECTIVES

OBJECTIVES	UNDERSTANDINGS	ATTITUDES	SKILLS OF DEMOCRATIC PARTICIPATION
Citizenship	Social responsibility is derived from the cultural environment.	Dignity and worth of the individual are of paramount concern within American society.	In our society the effective citizen must possess skills for participation in orderly and constitutional processes.
Communication Skills	Communication is learned within a culture and in the American corporate society participation is necessary by all.	American corporate society prizes free communication.	Skills of critical and creative thinking are needed to assess propaganda and to contribute to clarification.
Health	The effect of an individual's health holds consequences for the health of a society.	Responsible personal actions within a complex society are necessary to ensure the health of the entire society.	Skills in analysis of personal and social actions are necessary to determine health and safety precautions.
Family Life	The family is a functioning unit related to the larger social structure.	Each member of the family is respected for his contribution.	Each member of the family requires complex social and economic skills in order to fulfill his obligations to the family unit.
Economic Life	Social and economic backgrounds or any other single deterministic theory need not limit the economic expectancies of an individual within the American way of life.	Economic effort is a personal responsibility.	Effective skills of production and consumption are necessary to the welfare of our society.
Moral and Ethical Values	Some forms of transcendent values prevail within most societies.	Respect for various forms of worship and dissenting opinions prevails within our society.	Ability to inquire into different value systems and their sources and to assess their implications improves and facilitates social and political harmony and well-being.
Aesthetic Values	Beauty and its expressions are determined within the cultural setting.	Aesthetic experiences are recognized as a necessary part of man's pursuit.	Each person needs to acquire aesthetic skills in order to raise the aesthetic and cultural level of society by developing and contributing his artistic talents.

RANGE OF SOCIAL STUDIES SKILLS

Social studies skills are more definitive than understandings and attitudes. The skills are generally classified as follows:

- Developing a sense of time and chronological relationships
- Thinking in concrete, abstract, critical, or reflective and creative ways
- Locating and gathering information
- Organizing and evaluating information
- Reading social studies materials with comprehension
- Listening to social studies materials with comprehension
- Speaking effectively in social studies terms
- Writing effectively in social studies areas
- Interpreting graphic material
- Participating in a democratic manner

Skills important to the social studies are:

- Developing a sense of time and chronological relationships
- Interpreting graphic material
- Participating in a democratic manner
- Developing critical thinking

Emphasis on the skills unique to the social studies is generally found within the appropriate contributing area. Time and chronological relationships are basically derived from the historical category while the interpretation of graphic material such as maps and globes is derived from the geographical category. The skills of democratic participation are a result of all the experiences and perceptions within the total cultural context, and for the children of Oregon's schools, reflect the ways of thinking, acting, and doing known as the "American way of life."

Developing Social Studies Skills①

(For Study of Geography, History, Government, and Cultures)

The development of skills is a part of all teaching. Some skills are common to all subject matter and some are general in nature but specialized in application. Important skills acquired in one grade should be maintained and developed as pupils progress. The development of higher and higher levels of skills can be achieved only when proficiency in the earlier levels has been attained.

According to the Twenty-Fourth Yearbook of the National Council for Social Studies the following guiding principles of learning apply to skill development:②

For the acquisition and improvement of skills, the learning activity must focus on skill development.

Experience designed to promote growth in skills must be meaningful to the learner.

Experiences used in skill development must be geared to the maturation level of the learner.

For the successful learning and retention of skills, repetitive practice is necessary.

Skills should be developed in connection with ongoing activities and not in isolation.

Development of different skills should go on simultaneously

Evidence of skill development must be sought in changes in behavior.

Provision for the systematic development of skills must be made throughout the school program.

The development of skills unique to social studies should be part of all social studies teaching. Some skills for which the social studies teacher is responsible are the development of a sense of time and chronology and a sense of geographic location and relationship.

Skills needed for success in social studies learning have not always been recognized by teachers. At times the emphasis has been on repetition of textbook facts with little attention to the method of obtaining information or, when the selection of skills has been left to the discretion of individual teachers, important skills have been neglected and others repeated from class to class.

Although the following lists of skills are not inclusive, they are a guide to the more important ones and the approximate grade level when they should be introduced. The placement of these skills at particular grade levels depends upon the maturity of the pupils and their previous learnings.

PRIMARY

Critical thinking

Observe accurately.
Use materials with definite purpose in mind.
Plan and solve problems that are real and vital.
Discern between real and make-believe.
Make comparisons.

Locating and gathering information

Have direct experiences: looking, listening.
Recognize kinds and uses of source books, excursions, films, radio, and television.

Organizing and evaluating information

Plan orally the day's activity and evaluate in terms of essential parts.
Dictate in sequence an experience chart.
Recognize main idea in a story read by teacher.
Select a heading appropriate for a given list of items.
Alphabetize by first letter.

Reading skills

Develop new meanings for old words.
Recognize new words and develop new meanings.
Contribute supplementary materials.
Read for exact information.
Use multiple textbooks.
Read for appreciation.

Listening skills

Listen for directions.
Listen for details and retention.
Listen appreciatively.

Speaking skills

Express thoughts with ease and fluency.
Ask questions.
Add new words to oral vocabulary.
Refer to tools by correct names.
Make simple reports.
Tell story in sequence.

Writing skills

Organize thoughts for writing.
Keep simple records.
Copy words or write sentences with good letter formation and spacing.
Write simple poems and stories.

Interpreting maps and globes

Construct and interpret pictorial floor maps.
Recognize relative positions.
Follow simple map of a route.
Locate home, school, etc., in community.
Recognize types of landscape.
Give directions in community.
Interpret meaning of block or mile.

Developing sense of time and chronology

Tell time by clock.
Recognize sequence of days, seasons.
Recognize comparative time.
Interpret expressions such as years, months, days.

Interpreting graphic material

Obtain information from pictures within limits of child's ability.
Use symbols or pictures to represent a commodity.

Participating in group undertaking

Participate in dramatic play and games
Share pleasant experiences with others.
Work independently and with members of a group.
Be courteous and considerate of others.
Evaluate group activities.
Plan to share and assume responsibilities.
Plan how to use time wisely.

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① Approved by the State Board of Education, April 22, 1960.
② National Council for the Social Studies, NEA, 1201 16th Street, N.W., Washington, D. C., 1953, pp. 12-16.

INTERMEDIATE

Critical thinking

Draw inferences.
Share in decisions.
Evaluate outcome in terms of purpose.

Locating and gathering information

Use table of contents of textbooks and supplementary books.
Use simple index.
Use chapter, sectional, and topical heading.
Use encyclopedias and dictionary.
Use card index (author, title, and subject).
Use physical and political atlases and gazeteers.
Use appendices.

Organizing and evaluating information

Select sub-topics appropriate for given heading.
Arrange topics in logical order.
Combine information from many sources.
Distinguish between materials that are relevant and irrelevant.

Reading skills

Find central thought in paragraph.
Collect data relating to specific topics.
Skim.
Apply ideas obtained from books.
Read for detail.
Read for information.

Listening skills

Listen for comprehension.
Listen critically.

Speaking skills

Cite facts when disagreeing rather than argue.
Develop techniques in self-directed group discussion.
Participate in formal and informal dramatizations.

Writing

Do creative writing.
Stick to the topic.
Write descriptive paragraphs.
Write introductory sentences for articles and paragraphs.
Write summarizing sentences for articles.

Interpreting maps and globes

Compute and express distances in terms of simple linear measurements.
Use latitude and longitude lines to locate places.
Interpret abstract symbols.
Compare maps which give different facts about same area.
Measure distances on maps using graphic scale.
Read directional lines on flat surface or globe.
Draw map to scale.
Orient a map—street map and road map.

Developing sense of time and chronology

Interpret sequence of events in immediate past related to own experiences.
Relate personal experiences to dates.
Use time expressions which correspond to ordinal numbers.
Develop meaningful vocabulary of definite and indefinite time expression.

Interpreting graphic material

Use pictures and charts to illustrate reports.
Construct circle graphs.
Contruct pictorial graphs based on tables.

Participating in group undertaking

Divide responsibility within class.
Develop standards for effective group participation.
Offer useful ideas to the group.
Keep discussion on the track.

UPPER GRADES

Critical thinking

Distinguish between fact and opinion.
Recognize statements which support a generalization.
Determine author's point of view.
Analyze cause and effect relationships.
Draw logical conclusions.
Evaluate problems according to importance.
Anticipate results of certain actions.
Recognize when there is insufficient information to answer questions.

Locating and gathering information

Use Reader's Guide.
Use almanacs and yearbooks.
Use Who's Who.
Use Oregon Blue Book.
Use historical and economic atlases.
Use card file—cross reference.
Use vertical files.
Make public opinion poll.

Organizing and evaluating information

Take useful notes.
Distinguish between material which is relevant and material which is irrelevant for any given topic or question.
Organize historical events in sequence.
Draw conclusions from data.

Reading skills

Summarize.
Visualize places and conditions beyond immediate environment.
Think in terms of location when reading.
Adapt rate and technique to varying purposes and kinds of material.
Recognize and keep in mind series of related ideas.
Use social studies vocabulary.

Listening skills

Follow sequence of ideas.

Speaking skills

Express ideas without antagonizing others.
Give well organized report.
Use words developed in social studies.
Use formal panel discussion procedure.
Use formal dramatization.
Adhere to subject and follow pre-arranged plan.

Writing

Summarize.
Keep notes on lessons.
Prepare reports.
Assemble material for discussions.
Write informal dramatizations.
Write essays expressing own ideas.

Interpreting maps and globes

Construct maps using fractional scale.

Use polar-centered world maps.

Recognize distortions on flat maps.

Use township-range lines and atlas grid lines in map instruction.

Developing sense of time and chronology

Develop concept of calendar times (B.C., A.D.)

Relate dates to own experiences.

Place related and unrelated events in chronological order.

Separate time from personal experiences.

Substitute exact dates for descriptive terms.

Recognize that a cluster of events forms a historical period.

Interpreting graphic materials

Construct bar and line graphs.

Set up criteria for judging graphic materials.

Participating in group undertakings

Organize sub-groups to deal with particular issues.

Follow parliamentary procedures.

Recognize qualities of good leadership.

Facilitate group activity through analysis of group problems.

State-Adopted Content

Implementation of the social studies program in Oregon is through the content provided in the scope and sequence adopted by the State Board of Education. To this content, inquiry is applied, appropriate vocabulary is related and direction is provided for speculative thinking and for the establishment of concepts and generalizations. From this total process, understandings, attitudes, and skills are gained. Because thinking is of paramount concern and inseparable from inquiry, appropriate thinking processes should be selectively applied to varying situations. The basic framework provided for this instructional process at the local level is the state-adopted social studies content which follows on pages 67-69.

This statement represents a general scope and sequence for guidance of individual districts in social studies instruction. The content is under constant review by the Department of Education. Because of the growth throes in social studies curriculum development in this state, and nationwide, it is recognized that it may soon become inadequate for modern and forward looking programs. Consequently, as always, the Department encourages those districts with adequate curriculum resources, capable staff, and available instructional materials to experiment with an expanding content *supplemental to this state-adopted content* to meet the ever changing social situation.

EARLY YEARS IN SCHOOL

5- AND 6-YEAR-OLDS • • • KDGN. AND GRADE 1

Living in Homes and Schools*

Living in Schools
  Exploring Schools
  Knowing the Helpers in Schools
  Caring for Ourselves in Schools
  Having Fun Together Everywhere

Living in Homes
  Living in Families
  Working in Families
  Playing in Families

Enjoying the World About Us

Suggested topics around which learning experiences might be developed include zoo, farm, circus, pets, wild animals, construction, trips, hobbies, seasons, and holidays.

Concepts and Understandings

One makes friends by being a friend.

Successful group living calls for cooperative planning, sharing of responsibilities, and consideration for others.

Observation of courtesies make living happier.

Members of a group should help new members to become acquainted with their new environment.

A good citizen observes safety rules.

Everyone has a home.

The family is an important unit.

Each child is an important member of the family and, as such, should contribute to its welfare.

7-YEAR-OLDS • • • GRADE 2

Living in Neighborhoods

Exploring Neighborhoods

Getting Acquainted with Neighborhoods and Neighborhood Helpers

Working and Playing in Neighborhoods

Learning to Live Safely in Neighborhoods

Concepts and Understandings

A neighborhood is a group of people who live in the same area.

Natural surroundings affect the life of the neighborhood.

People live closer together in a city neighborhood than in a rural neighborhood.

Each child should be able to find his way in the neighborhood.

People may go to different churches, speak different languages, or belong to different races—but all may be Americans.

Each child should consider the rights, contributions, and properties of others.

Good manners are important in living in a neighborhood.

Some rules and regulations are necessary for health and safety.

Safety helpers are friends and give protection.

Each child should think and act promptly to insure safe living.

Each helper has a share in satisfying the needs of the neighborhood.

Each child has a responsibility to all neighborhood helpers.

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* Learning experiences should be drawn from the following areas whenever meaningful.

8-YEAR-OLDS • • • GRADE 3

Living in a Wider Community (town, city or county)

Community Helpers
Communication in Communities
Transportation in Communities
Recreation in Communities

NOTE: Early local community history, but not *Oregon* history as such, may be studied in this grade.

Concepts and Understandings

A wider community is a social unit made up of many neighborhoods including business, industrial, and residential districts.
Many helpers work to provide for the needs of the community.
People share and work together in a wider community.
The ways of doing things in a community are changing constantly.
Every individual has need for communicating.
It takes the combined efforts of many people to deliver information to the community.
Many methods of transportation are used in our community.
Transportation of goods and people contribute to better living in a community.
Natural and cultural surroundings play a part in the way people live.
Clean communities are pleasant places in which to live.

MIDDLE YEARS IN SCHOOL

9-YEAR-OLDS • • • GRADE 4

Living in the Pacific Northwest (Oregon, Washington, Idaho, and Montana) (Geography, History, and Resources)

Natural Environment
  Weather and Climate
  Landforms
  Natural Resources

Historical Background
  Contributions of Pacific Northwest Indians
  Contributions of Explorers, Traders, Missionaries, and Settlers

Cultural Environment
  Population
  Industries and Trade
  Transportation and Communication
  Customs and Ways of Living
  Conservation of Natural Resources

NOTE: Living in the Pacific Northwest may be supplemented, where feasible, by the study of examples found in other parts of the world where people of other cultures are meeting similar environmental problems.

10-YEAR-OLDS • • • GRADE 5

Living in the United States and Canada (Geography and History)

Unit 1. Pacific Coastal Regions of United States and Canada
Unit 2. Hawaii
Unit 3. Intermontane Plateau and Rocky Mountain Regions of United States, Canada and Alaska
Unit 4. Plains Regions of the United States and Canada
Unit 5. Interior Lowland Regions of the United States and Canada (St. Lawrence, Mississippi and Ohio River Valleys and the Great Lakes Region)
Unit 6. Appalachian Highland and Atlantic Coastal Regions of the United States and Canada

NOTE: A bridge to an understanding of Europe may be created by some study of the colonial origins of the United States and Canada in Western European cultures, especially English, French, Dutch, and Spanish.

Topics To Be Considered In Each Unit

The Natural Environment
  Weather and Climate
  Landforms
  Natural Resources

Historical Background

Cultural Environment
  Population
  Industries and Trade
  Transportation and Communication
  Customs and Ways of Living
  Problems of Living in this Area

11-YEAR-OLDS • • • GRADE 6

Living in Latin America (Geography, History, and Cultures)

Unit 1. Mexico, Central America, and Islands of the Caribbean
Unit 2. Andes Mountain Regions of South America (Colombia, Ecuador, Peru, Chile, Bolivia, and Venezuela)
Unit 3. Plains regions of South America (Brazil, Argentina, Bolivia, and Paraguay)
  Gran Chaco of Brazil
  Orinoco Plains of Venezuela and Colombia
  Pampas of Argentina
  Patagonia—Argentina
Unit 4. Amazon Lowlands (Brazil, Eastern Peru, Ecuador, Colombia)
Unit 5. Highland Regions of South America (The Guiana and Brazilian Highlands)

NOTE: A bridge to an understanding of Europe may be created by some study of the colonial origins of Latin America in Western European cultures, especially Spanish and Portuguese.

Topics To Be Considered In Each Unit

The Natural Environment
  Weather and Climate
  Landforms
  Natural Resources

Historical Background

Cultural Environment
  Population
  Industries and Trade
  Transportation and Communication
  Customs and Ways of Living
  Problems of Living in this Area

LATER YEARS IN SCHOOL

12-YEAR-OLDS • • • GRADE 7

Living in the Eastern Hemisphere (Geography, History, and Cultures) (Sequence of Units Optional)

Unit 1. North Africa and Middle Eastern Countries (Morocco, Algeria, Tunisia, Libya, Egypt, Sudan, Ethiopia, Rio de Oro, Israel, Jordan, Saudi Arabia, Iraq, Iran, Syria, Turkey, and French, Italian, and British Somaliland, Pakistan)

Unit 2. Central and Southern Africa
- Guinea Coast (Coastal French West Africa, Ghana, Liberia, and Nigeria)
- Western Sudan (Liberia, French West Africa, Northern Ghana, Nigeria, Sierra Leone, Gambia, and Portuguese Guinea)
- Central West Africa (French Equatorial Africa, Belgian Congo, Angola, Cameroons, Cabinda, and Rio Mundi)
- East Africa (Kenya, Uganda, Tanganyika and Zanzibar)
- Southern Africa (Nyasaland, Northern and Southern Rhodesia, Bechuanaland, Basutoland, Swaziland, Mozambique, Madagascar, Southwest Africa, and Union of South Africa)

Unit 3. Asia (India, China, Japan, Southeast Asia)

Unit 4. Europe (Western Europe, Eastern Europe, U. S. S. R.)

Unit 5. Australia and New Zealand

Topics To Be Considered In Each Unit

- The Natural Environment
  - Weather and Climate
  - Landforms
  - Natural Resources
- Historical Background
- Cultural Environment
  - Population
  - Industries and Trade
  - Transportation and Communication
  - Customs and Ways of Living
  - Problems of Living in this Area

13-YEAR-OLDS • • • GRADE 8

United States History (Narrative Approach)

- Europeans Seek Freedom and Security in a New World
  - The New World is rediscovered, then explored.
  - People from many lands start new lives in the Americas.
  - Colonists struggle to uphold their beliefs.
- Our Government Is Established Under the Constitution
  - Ideas of freedom are stated in basic documents.
  - The Constitution receives its first tests.
- Our Nation Expands Its Boundaries
  - Land policies are established in the Northwest Territory.
  - The nation extends its boundaries as great issues divide the people.
  - Oregon has an important place in the Union.
  - (A limited study of Oregon history, geography and government is indicated here.)
- The United States Becomes a Great Industrial Nation
  - Industrial changes alter the condition of the worker and the owner.
  - Industrial changes alter the ways of living.
- The United States Becomes a World Power
  - The United States assumes influence in Latin America, the Pacific, and Europe.
  - Our attitude towards international responsibility changes through a second world-wide conflict.
- The People of the United States Seek Increased Rights and Face New Responsibilities
  - Our people are confronted by economic and social problems.
  - A good citizen works to solve the problems of his society.
  - A good citizen understands his local and state governments and participates in their activities.①

Suggested Illustration For Teaching and Learning

In organizing the social studies content for instruction, local teachers and districts are encouraged to determine the appropriate opportunities for children in dealing with social studies phenomena. However, social studies cannot be properly undertaken unless the interrelationships of each contributing discipline comprise a part of the study. At the elementary level, *a separate subjects approach* is not the most satisfactory way of organizing the social studies area of the curriculum. It is entirely possible, however, for the social studies to be organized in units around *persistent life situations* or *social problems*. Unit organization around any one of these organizational patterns also allows for inquiry into other areas such as music and art. Just as one should avoid the artificial and trivial which often prevails in correlation activities, artificial and trivial statements merely for the sake of including concepts from the social studies categories should be avoided.

The application of Oregon's content to the schematic structure of the social studies field through the social problems approach with *possible* concepts and generalizations which the learner may formulate is illustrated through the following modules at two levels. It is expected that many concepts and generalizations will be formed by the learner, and these modules merely illustrate some of the many possible concepts and generalizations. The learner should always be encouraged to state verbally his conceptualizations and generalizations since the experience of organizing them verbally often facilitates transfer to new situations. The verbalizations should not be repetitions of teacher stated ideas, but the learner's personal statements.

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① Adapted from the Oregon State Department of Education, *Social Studies Supplement:* To the Guide for Elementary Education in Oregon, the Department, 1960, pp. 5-7.

EARLY YEARS MODULE—SOCIAL PROBLEMS APPROACH

THE TEACHER		THE LEARNER
Selects the broad framework for study	**ADOPTED CONTENT** Living in our neighborhood	Observes the phenomena or conditions
Diagnoses interests, skills, understandings, attitudes, and abilities. Helps children state the problem.	**ORGANIZED CONTENT** What is the contribution of our neighborhood helpers?	Defines the problem
Helps children formulate appropriate questions	**INQUIRY CATEGORIES** Geography History Psychology Philosophy Economics Political Science Sociology Anthropology	Inquires through pertinent questions
Directs experience toward concept formulation	**CONCEPTS (EXAMPLES)** Natural surroundings affect the life of the neighborhood Prior work done in the neighborhood provides a base for what is done presently "Feelings" and attitudes of a neighborhood may be affected by leaders within the neighborhood or changed by outside events People may hold different view points such as religion and ethics All helpers within a neighborhood contribute to the economic level and well-being of the neighborhood Local government exists to extend services such as maintaining law and order People live closer in a city neighborhood than in a rural neighborhood The changes within the neighborhood may be a result of many factors such as the level of education and technology	Formulates appropriate concepts
Provides opportunities to make inferences regarding inter-relations	**GENERALIZATIONS (EXAMPLES)** The neighborhood is composed of many helpers each influenced by his own background, and the neighborhood's past endeavors as well as present events	Assimilates and builds generalizations
Promotes problem solving	**APPLICATION** Solves the problem: What is the contribution of our neighborhood helpers?	Tests ideas and solves problems
Encourages intuitive and speculative thinking towards new problems and situations	**TRANSFER** New problems and situations	Transfer knowledge to new situations

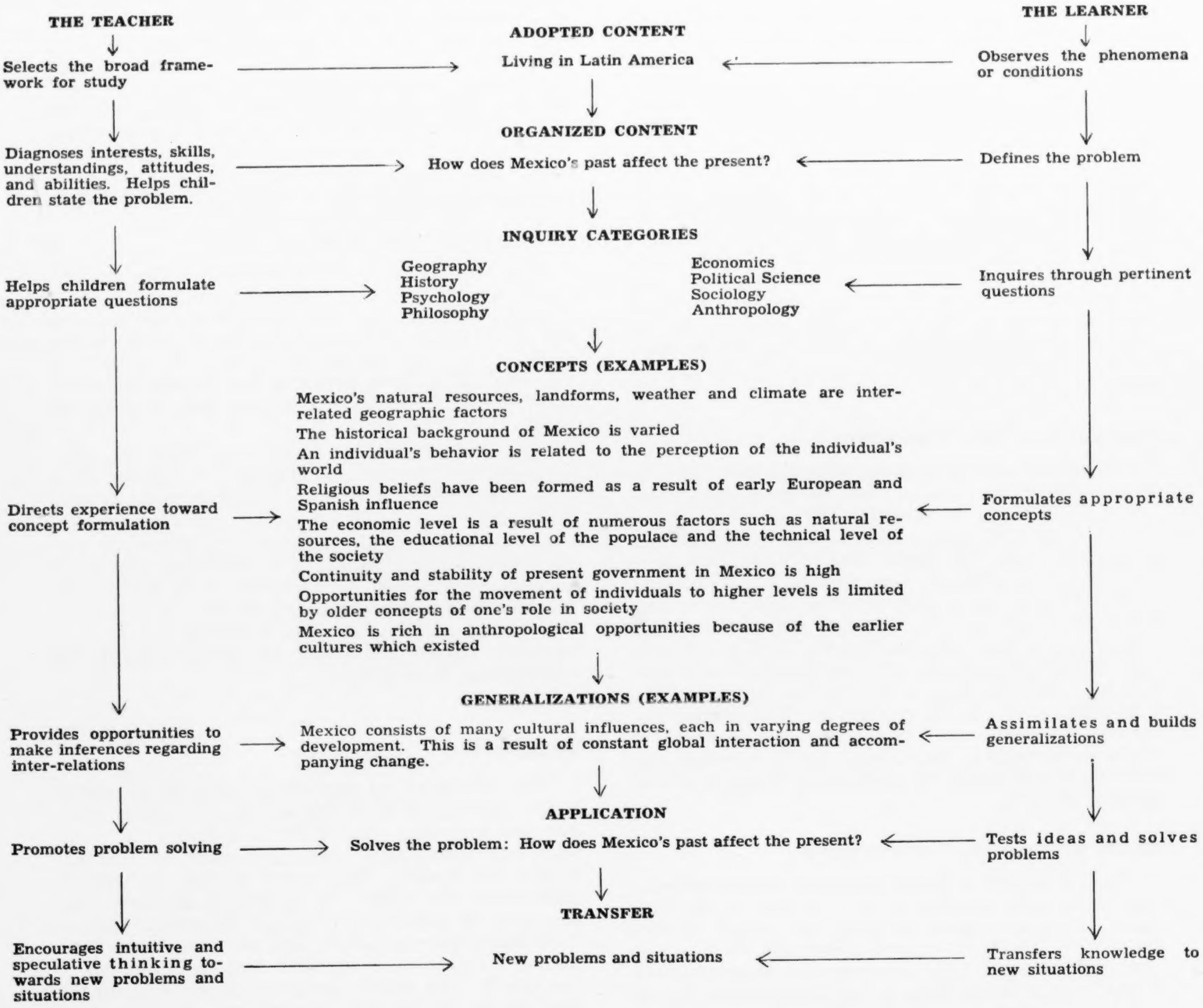
RATIONALE FOR THE MODULES

The module is intended to *illustrate* a possible course for the teacher and the learner in pursuing a systematic study of social studies. It is based upon the belief that the teacher is *obligated* to provide planned experiences for children which reflect the shared and distinct functions of the school within the American society. One function shared with many agencies is the induction of youth into the American way of life. The distinct function, however, is the equipping of youth with the intellectual processes necessary for participation within our society. Instructional programs in our society must be comprehensive and recognize both the shared and the distinct functions of the school. A teacher's obligation is therefore two-fold with successful schooling dependent upon each teacher's assumption of this obligation. This module is further based upon the belief that teachers deliberately and systematically conduct the learner through a series of experiences designed to achieve the results desired by society and that direct schooling experiences originate with the teacher.

In Oregon the instructional aspect of the school's program begins with the teacher's selection of the state-adopted content. From this broad content, the teacher further organizes by diagnosing the interests, abilities, attitudes, and skills of the children. This aspect is indicated as a second step on the module and is followed by the next teaching step which is to direct the formulation of questions. The learner also moves from one point to another as indicated by the progressive movement from observation through transfer. Both the teacher and the learner interact at each point as indicated by the arrows. However,

(continued on p. 71)

MIDDLE YEARS MODULE—SOCIAL PROBLEMS APPROACH



THE TEACHER		THE LEARNER
Selects the broad framework for study	**ADOPTED CONTENT** Living in Latin America	Observes the phenomena or conditions
Diagnoses interests, skills, understandings, attitudes, and abilities. Helps children state the problem.	**ORGANIZED CONTENT** How does Mexico's past affect the present?	Defines the problem
Helps children formulate appropriate questions	**INQUIRY CATEGORIES** Geography History Psychology Philosophy Economics Political Science Sociology Anthropology	Inquires through pertinent questions
Directs experience toward concept formulation	**CONCEPTS (EXAMPLES)** Mexico's natural resources, landforms, weather and climate are inter-related geographic factors The historical background of Mexico is varied An individual's behavior is related to the perception of the individual's world Religious beliefs have been formed as a result of early European and Spanish influence The economic level is a result of numerous factors such as natural resources, the educational level of the populace and the technical level of the society Continuity and stability of present government in Mexico is high Opportunities for the movement of individuals to higher levels is limited by older concepts of one's role in society Mexico is rich in anthropological opportunities because of the earlier cultures which existed	Formulates appropriate concepts
Provides opportunities to make inferences regarding inter-relations	**GENERALIZATIONS (EXAMPLES)** Mexico consists of many cultural influences, each in varying degrees of development. This is a result of constant global interaction and accompanying change.	Assimilates and builds generalizations
Promotes problem solving	**APPLICATION** Solves the problem: How does Mexico's past affect the present?	Tests ideas and solves problems
Encourages intuitive and speculative thinking towards new problems and situations	**TRANSFER** New problems and situations	Transfers knowledge to new situations

(Rationale for the Modules continued)

the learner's movement is highly dependent upon the teacher's planning which precedes each step that the learner takes. This does not mean that the learner does not help in the planning. Likewise, it does not mean complete freedom of choice for the learner. The learner does help in some planning, but it is generally within the second and third steps of the module (defining the problem and inquiry through appropriate questions) where greater opportunity is provided for pupil planning of related activities.

Such a module does not mean to imply a denial of individual differences among learners. Neither does it advocate a rigid teaching plan. The particulars of the social studies will vary as illustrated by the center sections of the modules for the early years and middle years in school. Details of concern for the teacher and learner will also vary even though a *general* plan of teaching and a *general* plan of inquiry may remain fairly constant. Of significance to a social studies program—as well as to other curriculum programs—is the confrontation of the learner with a school learning experience which has been planned carefully and thoroughly at each step. A systematized method of helping children learn through social studies may, therefore, be approached through the adopted content, the organization of the adopted content, the use of inquiry categories, the development of concepts, and the formulation of generalizations, their applications and deliberately planned transfer. This is but *one* type of inquiry which utilizes the stages as indicated. It should be noted that any of the stages of the inquiry described in this section may be entered at any point or combined at any point on a grand scale. Other systems of inquiry should be examined and receive consideration, and the details of any one system should never become crystallized.

Some Emphases in the Social Studies

No set of general objectives nor any outline of social studies content adequately reflects the needs of society indefinitely. New problems constantly arise which demand improved skills and understandings or changed attitudes and appreciations on the part of the citizen in a political democracy. The following material represents some emphases recommended for current social studies teaching in Oregon schools which are not adequately stressed in the state-adopted content. Although social studies revision is being widely studied, both at the state and local level, a substantial time will elapse before these suggestions and others can be incorporated in the formal program. Meanwhile local districts should be alert in providing the instruction necessary to the welfare of society and the development of the individual in relation to changing circumstances such as those mentioned here.

INSTRUCTION IN CITIZENSHIP

The social studies program does not bear the sole responsibility for development of good citizenship skills, attitudes, and behavior. These should be a result of the total organization and instruction of the school. Nevertheless, social studies instruction presents the most effective opportunities for developing many of the attitudes of good citizenship. Since attitudes are combinations of understandings and conviction, sound and sympathetic social studies teaching can lay the groundwork for many needed attitudes and help develop them to appropriate levels for the pupils involved. Social studies teachers should cooperate fully to make their classrooms laboratories of democracy and to induce their pupils to enter fully into the opportunities for democratic living provided by the school.

STATE AND LOCAL GOVERNMENT

Closely related to the development of good citizenship is an understanding of the processes of government. In the Oregon program for social studies instruction, there is limited provision for a close study of state and local government. Most teachers of the United States History and Government course required in high school find their time does not permit much examination of government below the national level.

An appropriate place for a somewhat detailed study of state and local government appears to be in the eighth-grade social studies program where Oregon history and government are taught. Provision is made for a substantial unit on Oregon. This unit should be expanded to include ample time for study of Oregon state and local government so students will know the organization and operation of their government at these levels. This should be done even if it results in some curtailment of the time for study of recent United States history since this will be taught in depth at the high school level.

ECONOMIC UNDERSTANDINGS

One of the threads or strands which should run through the social studies program is the development of an increasing number of related economics concepts and understandings. Economics is one of the disciplines which should contribute to an integrated social studies program. It is generally recognized that this area has long been a neglected phase of social studies instruction. There is also a strong conviction that a wholesome and secure national life cannot be developed in the modern era of intricate economic development without a citizenry which understands the main features of an economic society. Stress on economic understandings and concepts at appropriate levels is highly recommended.

PROBLEM OF THE AGING

One of the persistent problems of the modern period is that of the increasing population of aging citizens. There are two aspects to this problem. One is a need for an understanding of the problems of the aging so they may be met adequately; the other is a need for an understanding of the process of aging itself so that the individual citizen may be prepared for it.

This problem has become acute with the prolongation of life and the increased longevity of a large number of our citizens. Since sociologists predict a continued rapid increase in our aged population will dramatically change the nature of our society in the near future, it is important that these problems be brought to the attention of pupils both for their own need to be prepared for this process as individuals and their need to understand it as participating citizens faced with the social and political adjustments it creates.

Evaluation

The evaluation of any school program is related to the two functions of the school: inducting youth into the American way of life and equipping youth with the intellectual tools necessary to function within our society. The social studies, as well as other curricular areas, are evaluated on their contributions to these two functions. Related to each of these functions are teaching and learning aspects. The teacher's obligation is to fulfill both the functions of the school. The child's obligation is to fulfill to the best of his ability the expectations of the school respecting its functions.

Both teaching and learning call for appropriate evaluative techniques. In part, evaluation of the teaching aspect is through the degree of teacher fulfillment of the teaching obligation as related to the functions of the school. (Space does not permit discussion of the evaluation of teaching as opposed to the evaluation of learning.) All evaluation, however, begins with the obligation to our society as viewed from the American context and reflects the goals, aspirations, and values of American society. Ultimate evaluation is through the fulfillment of this obligation.

Since the social studies program, as well as other school programs, must reflect the goals, aspirations, and values of American society, the specific objectives of the program must also be consistent with society's goals. The objectives of Oregon's social studies are stated through the scope and are consistent with our society's goals. This scope also provides the framework for the evaluation of learning within a social studies program. Successful learning in social studies is therefore measured by—

1. Participation in cultural, social, and civic activities and opportunities for the development of appropriate attitudes and appreciations
2. Development of skills applicable to the unique materials of the social studies
3. Acquisition of social studies facts
4. Mastery of inquiry appropriate to the social studies
5. Development, application, and transfer of concepts and generalizations.

Considerable emphasis has been placed throughout this Guide on the use of appropriate language and questions. Undoubtedly, misgivings or misinterpretations may arise as a result of this emphasis and lead to the hasty conclusion that verbalizations by the student and/or teacher are of such importance as to constitute the means by which teaching and learning may be evaluated. Such a conclusion and misunderstanding of this aspect of teaching and learning would indicate that language, questions, and questioning have not become a part of the teacher's conscious understanding of the teaching act, or a part of the learner's intellectual processes. The evaluation of this aspect of social studies learning is not merely through verbal recitations but through working habits, approach to analyzing problems and situations, and the thinking processes a child evidences. Details of evaluating learning in social studies will and must vary according to the children, the content, and the direction provided by the questioning. Evaluation at all times, however, should be related to the individual and assessed according to his progressive attainment of social studies objectives.

Glossary

Category—An arbitrary classification used to direct inquiry toward phenomena and/or relationships. Categories are [illegible] fixed groupings. They are guides to [illegible] perceptions rather than to provide limit[illegible]

Determinism—A [illegible] ncomplete theory or viewpoint from which [illegible] pertinent and impertinent conclusions are reached.

Discipline—An organized body of knowledge ordered by the types of questions asked, often expressed in a unique language, which becomes generative of new ideas and further knowledge.

Inquiry—The process of searching for or discovering new knowledge.

Inter-disciplinary—The relating of one discipline to another.

Interests of Children Approach—The organization of curriculum around the immediate interests of children. This is no longer generally advocated as an organizational procedure except for purposes of incidental teaching or for extreme learning impairments. (The desirable *use* of children's interests should not be confused with the organization of a program built solely around the interests of children.) (May apply to other areas of the curriculum.)

Method—The systematic examination of phenomena through a mode of inquiry.

Mode of Inquiry—A way of observing, thinking, questioning, and confirming.

Module—A plan for indicating sequential movement. (Illustrated by two modules in the social studies section with a teaching and a learning sequence for a social studies program in the early and middle years of school.)

Persistent Life Situations Approach—The organization of curriculum around problems of man such as shelter and food with which he has dealt persistently throughout history. Note that persistent life situations may be combined also with social problems such as housing and communications. (May apply to other areas of the curriculum.)

Phenomenon—Any event, problem, situation, or observable factor.

Productive Thinking—The mental process which generates further thinking at any level—concrete, abstract, or creative.

Separate Subjects Approach—The organization of curriculum around the separate contributing disciplines. Such an organization is effective for specialization at higher education levels whereas the concern for most people is the more general relationships. When a separate subjects approach is used, each contributing discipline must be examined separately according to its own mode of inquiry and internal structure. A separate subjects approach is not advocated for the social studies program in the elementary school. (May apply to other areas of the curriculum.)

Social Problems Approach—The organization of curriculum around problems of social concern such as growth of metropolitan areas. (May apply to other areas of the curriculum.)

Social Studies—A body of facts, concepts, and generalizations which may be arranged and examined systematically for the study of man's interrelationships with man and his environments.

Social Studies Adopted Content—The broad framework adopted by the state as a common area of study for all Oregon elementary schools.

Social Studies Organized Content—The selected problems, situations, and events from the state-adopted content which the teacher forms into manageable areas or units of study such as social problems, persistent life situations, interests of children, or separate subjects.

Structure—The internal and arbitrary organization of material within a field of knowledge which facilitates inquiry and provides cohesiveness.

Thinking—The intellectual processes used for forming judgments. Levels of thinking according to one simple classification are: (1) *concrete thinking:* literal application; (2) *abstract thinking:* critical and interpretive thinking; and (3) *creative thinking:* speculative and/or elaborative thinking.

Transfer of Learning—The deliberate organization of principles and generalizations which leads the learner to insightful conclusions regarding new data.

Science

An effective science program develops in children a spirit of inquiry and a commitment to learning which continues throughout life. A good science program is directed toward developing in pupils an ever-increasing understanding of the concepts and principles underlying natural phenomena. These understandings are best learned when children are given opportunities to discover science meanings for themselves. The challenge to teachers is to help young people learn to use these basic understandings in new and constantly changing situations.

Scientific literacy is much more than the accumulation of factual information. The rapid changes taking place in technology and their implications to daily life indicate that no one lives his entire life in the kind of world in which he is born. Training young people to live only for today is inadequate in view of the continual changes that lie ahead. A good science program provides opportunities for children to think critically and creatively in coping with new situations.

Many leaders in the field of science education have expressed concern about teaching science in ways that will provide meaningful orientation to our rapidly increasing fund of scientific knowledge. General agreement exists between scientists and educators that science content, though flexible, must be carefully planned and organized to help young people develop science understandings for themselves.

Scope

The scope of the elementary school science program may be stated as follows:

- Students should be led to discover concepts.
- Students should develop and use self-learning skills.
- Science education should liberate curiosity.
- Students should be led to discover the intrinsic values inherent in science.

Students should be led to discover concepts. A concept is defined in this Guide as an abstraction that "applies to a class or group of objects which have certain qualities in common."①

Discovering, hypothesizing, and verifying are activities in which everyone participates in daily life. The use of concepts that result from these processes develops in children a growing awareness of themselves, and encourages them to want to "find out about things." The concepts and degrees of understanding of the concepts depend upon the child's past experiences and the information accumulated as he interacts with his environment.

Children can formulate concepts and make generalizations when they are encouraged to pursue their problems through to conclusions satisfying to them. Their understandings of conclusions function as concepts which may be verbalized or nonverbalized and used as a basis for refining concepts arising from additional experiences or in stating generalizations.

The role of the teacher is one of guiding and encouraging children to explore, question, and formulate conclusions based on their experiences. This technique is quite different from telling children about an experience and then asking them to repeat or verify the concept already given to them. Although the latter technique is concise, easy, and fast, it is not as meaningful or conducive to real understandings as the first technique.

Students should develop and use self-learning skills. To remain scientifically literate for life depends on the ability of an individual to learn for himself. Skills for learning about the environment are best acquired when children are allowed to observe, inquire, and explore for themselves. There is no one scientific method which is universally used but there are many logical approaches by which accurate insights may be gained. Children should be encouraged to try different ways to learn and to develop many self-learning skills.

An elaboration of specific skills which are used in science is made under "Processes" in this section of the Guide.

Science education should liberate curiosity. The child is innately curious about many things. An imaginative program will expose the many wonderments which exist in the universe. An objective of instruction is to liberate the individual's curiosity and foster his concern about many things in the world around him. Science may be regarded as a disciplined form of human curiosity.

Students should be led to discover the intrinsic values used in science. Intellectual honesty is essential to the scientific enterprise. Faith in rational thinking, idea sharing, and humaneness evidence a belief in the potential of the observer and in the discoverability of the observable universe if thought is reinforced by experimentation. Honesty, faith, and other such values are not new but they persist because they work. As a result of these and other such values, science is the international enterprise in which ideas are most nearly shared regardless of race, religion, creed, or nationality. The chief motive for becoming a scientist is a reverence for and a wonder about the universe and its phenomena of which we are a part.

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① National Society for the Study of Education. *Part I, Learning and Instruction,* Forty-Ninth Yearbook, the Association, Chicago, 1950, p. 106.

Structure

The major effort of local science curriculum committees and classroom teachers will be to organize the final structure of the science program. Traditionally, this organization has centered around the coverage of topical or conceptual outlines with chosen areas designated for certain grade levels. There are several reasons for omitting such an outline from this Guide.

First, the explosion of knowledge and its impact on a changing society makes entirely inadequate the limitation of teaching to the presentation of current knowledge. To remain scientifically literate for life, citizens will need to be able to understand and assimilate, to some degree, the confrontations of unfamiliar situations. New developments and ideas are continually found in current literature. When they are appropriate, they should also be presented as part of the science program.

Science phenomena are an integral part of everyday living. For the most part the content of science should be selected from situations which are related to the child's normal environment. For this reason science topics will often depend on the geographical location and the cultural and socio-economic conditions of the local community. Current developments on a national scale also require local committees to be alert to new curriculum materials which are becoming available. The use of these new materials is encouraged after they have been carefully studied and only if they harmonize with the philosophy of the local curriculum. The results of pilot studies and field testing in Oregon schools should be shared with all teachers in the state and used as a guide in planning programs.

Authorities agree that there are a limited number of basic conceptual schemes which underlie natural phenomena. These conceptual schemes permeate all areas of science and reflect the unity of science as we perceive it in life. Regardless of the topic being studied, it is most important that an increasingly sophisticated understanding of these ideas is developed as the child matures.

It is not the purpose of the science program to teach the major conceptual schemes. The science program (K-12) is designed to provide experiences which give children deeper insight into the schemes. As in other areas of the curriculum, it is the professional responsibility of the teacher to ascertain the maturity level of the child and to guide him in developing a better understanding of the basic schemes.

MAJOR CONCEPTUAL SCHEMES

The following are some of the major conceptual schemes underlying natural phenomena as identified by the National Science Teachers Association Curriculum Committee:

CONCEPTUAL SCHEME I. ALL MATTER IS COMPOSED OF UNITS CALLED FUNDAMENTAL PARTICLES: UNDER CERTAIN CONDITIONS THESE PARTICLES CAN BE TRANSFORMED INTO ENERGY AND VICE-VERSA.①

Matter makes up all living and nonliving things in the universe. Matter is involved in all chemical and physical changes. To develop a fundamental understanding of the changes and interactions found in the environment, it is necessary to develop a conceptual model of matter and the organization of its particles.

The "building blocks" of matter are atoms. Atoms in turn are made of many kinds of particles. Of these the electron, proton, and neutron are the more stable particles.

Studies of nuclear and atomic reactions show a relationship between matter and energy. Under special conditions matter can be transformed into energy. Under other special conditions particles have been materialized from forms of energy.

Although teachers have often underestimated the capabilities of children, it is questionable that many elementary school children are capable of forming an accurate perceptual model of the atom and its subatomic particles. It is suggested that young children become acquainted with the nature of substances and materials which are found readily in their environment. This may involve investigation of the properties of air, seeds, rocks, ice, or any harmless substance or item. Eventually they will explore and study models of atoms and their particles based on matter and energy transformations.

CONCEPTUAL SCHEME II. MATTER EXISTS IN THE FORM OF UNITS WHICH CAN BE CLASSIFIED INTO HIERARCHIES OF ORGANIZATIONAL LEVELS.①

To understand the order in the universe, it is necessary to group different forms of matter into organizational levels on the basis of similarities and differences. For example, if electrons, protons, and neutrons are regarded as fundamental particles, a combination of these particles forms a higher organizational level, namely the atom. Combinations of atoms form molecules. This increasing complexity of organization may give rise to any substance such as an animal, air, or paint.

Young children need to have many opportunities to examine matter as exhibited in a variety of objects. They need to group them according to criteria which they develop. Activities may include grouping a variety of objects on a table, the toys in a toy box, a group of living things, different rocks and minerals, or the objects in the universe. These groupings or classifications are often arbitrary but, nonetheless, they may be valid.

More sophisticated studies will examine the classification of living things based on structure. Eventually, pupils need to understand the relationships between parts of living things such as cells, tissues, and organs. They need to understand the structure of proteins and nucleic acids which are the chemical building blocks of living cells.

Individuals who can identify the component parts of a system and organize them into groups according to similarities and differences are more apt to organize meaningful patterns in life situations.

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① National Science Teachers Association, *Theory Into Action In Science Curriculum Development*, the Association, Washington, D. C., 1964, p. 20.

CONCEPTUAL SCHEME III. THE BEHAVIOR OF MATTER IN THE UNIVERSE CAN BE DESCRIBED ON A STATISTICAL BASIS.①

The description and prediction of the behavior of matter or of animals requires the use of measurement and statistics. Although higher mathematics is required for sophisticated descriptions of matter, quantitative measurement and analysis can be used with elementary school children to describe and to predict. For example, to describe a ball as being large means little unless it is compared with some known unit of measurement. To describe a ball as being larger than a tennis ball has added meaning to those who can visualize a tennis ball. Children in the early years of elementary school can be trained to give more accurate descriptions based on a given frame of reference or on some unit of measurement.

In the classroom program, data should be collected and analyzed to form a sound basis for prediction. Young children can measure the length and positions of shadows during the day. They can record the number of swings per minute of a pendulum when its string is at different lengths. With a given animal they may record the number of particular responses of behavior to a given stimulus and make judgments based on the data. Many meaningful experiences relating to this concept can be found for any level of study.

The ability to predict and to form a basis for judgment arises from the collection of statistical data and its analysis. For example, by flipping a coin many times, it is possible to predict that a coin will show "heads" or "tails" about 50 percent of the time. It is impossible to predict what any single toss will be. As the student matures, he should use more refined ways to measure, collect data, and use mathematical analysis to form generalizations.

CONCEPTUAL SCHEME IV. UNITS OF MATTER INTERACT. THE BASES OF ALL ORDINARY INTERACTIONS ARE ELECTROMAGNETIC, GRAVITATIONAL, AND NUCLEAR FORCES.①

Forces (pushes or pulls) in the universe include those which are gravitational, magnetic, electrical, and nuclear. Gravitational force is a property of all matter. Small quantities of matter, such as the human body or a book, have gravitational fields, but they are too small to be measured with ordinary instruments. The gravitational force of a large object, like the earth, is often taken for granted. This force was discovered only about 300 years ago. Gravitational force determines the motions of all spatial bodies.

Magnetic force is evident between certain substances, such as iron, nickel, and cobalt. This force plays an important role in our daily lives, especially in electrical appliances.

Although all of the interactions between matter in our environment take place in a gravitational field, the direct interactions of substances and objects within this field are manifestations of electrical force. Chemical reactions, including those in the biological system, involve an electrical force. Thus, the force of a contracting muscle can be traced to the electrical force inherent in the chemical units within the muscle cell.

Children cannot help but work within the framework of interacting matter and the forces involved. They should continually develop better ways to detect, measure, and understand the nature of the different forces.

CONCEPTUAL SCHEME V. ALL INTERACTING UNITS OF MATTER TEND TOWARD EQUILIBRIUM STATES IN WHICH THE ENERGY CONTENT (ENTHALPY) IS A MINIMUM AND THE ENERGY DISTRIBUTION (ENTROPY) IS MOST RANDOM. IN THE PROCESS OF ATTAINING EQUILIBRIUM, ENERGY TRANSFORMATIONS OR MATTER TRANSFORMATIONS OR MATTER-ENERGY TRANSFORMATIONS OCCUR. NEVERTHELESS, THE SUM OF ENERGY AND MATTER IN THE UNIVERSE REMAINS CONSTANT.①

Interacting matter tends to reach an equilibrium state. A falling object, for example, continues to fall until it comes to rest. At rest the forces within the system are equal and the system becomes relatively static. During a chemical reaction, matter and energy are undergoing transformations which approach an equilibrium state when the reaction is complete. Although some of the energy may be lost to the air, the total amount of matter and energy in the system remains constant.

An important part of any science study will be to account for matter and energy which go into transformations. When children study digestion or any other chemical change, they should begin to understand the role of matter and energy. They should understand that some food is eaten to provide energy to sustain the life processes and that food is also needed to replace or build body tissues. When they observe physical interactions which may involve weather changes, collisions, and motion, they should begin to think in terms of energy transfer.

CONCEPTUAL SCHEME VI. ONE OF THE FORMS OF ENERGY IS THE MOTION OF UNITS OF MATTER. SUCH MOTION IS RESPONSIBLE FOR HEAT AND TEMPERATURE AND FOR THE STATES OF MATTER: SOLID, LIQUID, AND GASEOUS.①

The kinetic-molecular theory of matter assumes that matter is made up of units called "molecules" and that these molecules are in constant motion. This mechanical model of matter helps explain the pressure exerted by a gas, the notions about heat, and the phases of matter (solid, liquid, and gas).

An enclosed balloon, for example, tends to remain the same size at any given time. In other words, the air pressure within the balloon remains constant. When heated, the balloon expands. Very briefly, the energy (heat) was transferred to the moving molecules of the gas. This added energy increased the motions of the molecules which, in turn, caused them to move farther apart and the gas expanded. If allowed to cool, the molecules of gas would lose some of their energy. The motion of each molecule would decrease and the gas would contract.

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① *Ibid.*

The bombardment of the moving molecules within the balloon is at random but their numbers are so great that the net result is a steady pressure.

The following paragraph from *Theory Into Action* points out many other examples.

> The motion of particles, or units of matter, plays a major role in a wide range of phenomena. The entire field of current electricity (electrodynamics) is based upon the motion of charged particles. Diffusion phenomena in gases and liquids, and across permeable membranes, are accounted for in terms of kinetic theory; the motion of ions, which plays so important a role in the biochemistry of living systems, involves both kinetic theory and electric field theory. Chemical kinetics, the study of the velocity and mechanism with which chemical reactions occur, depends upon the motions of molecules and ions. The oscillation of electric charges in a radio antenna gives rise to electromagnetic radiation. Differential heating and cooling of groups of molecules in the atmosphere gives rise to winds, and other changes in molecular kinetic energy account for most of the phenomena we class under weather. These are but a few examples of the various ways that the motion of units of matter is used to account for the organization and behavior of physical and biological systems.⑦

CONCEPTUAL SCHEME VII. ALL MATTER EXISTS IN TIME AND SPACE AND, SINCE INTERACTIONS OCCUR AMONG ITS UNITS, MATTER IS SUBJECT IN SOME DEGREE TO CHANGES WITH TIME. SUCH CHANGES MAY OCCUR AT VARIOUS RATES AND IN VARIOUS PATTERNS.⑧

Change is inherent when there is an interaction between different matter. A simple example is found in the process of digestion. When food is digested, the units of matter which comprise the food are changed into a form which may become part of the human body. All of the fundamental units of the original matter are still present. They have only been changed in their form, properties, and position. It is important to note that these changes occurred in a definite time sequence.

This succession of events can be continued to include the eventual death of the living organism and the decay of its tissues into nonliving units of matter. Eventually, it may become a part of another tissue and the change continues.

Young children may make gross observations regarding the bare winter twig and thick summer foliage. The more advanced students will examine the details of growth and the continuity of life. Beginning students may examine their gross observations of food chains, while the advanced student will examine the energy and matter interactions of digestion. Still another important example is the study of life through the ages and the systematic changes that have come about during geologic epochs.

The preceding brief descriptions give a very superficial idea of the seven conceptual schemes which may form the basic structure around which a K-12 science curriculum may be constructed. They are so brief that it would be most inadequate to teach them verbatim.

SUBCONCEPTS OF MAJOR SCHEMES

Many subconcepts of varying levels of difficulty can be categorized under each of the major schemes. It is recommended that the science curriculum be developed around depth studies which examine subconcepts of the major schemes. The sample chart on page 78 illustrates a suggested format which may be used to organize a local curriculum. The units of study have been arbitrarily selected from the Department of Education handbook *Science for Oregon Schools*, K-12. Local districts may wish to develop similar charts by grade levels for teacher usage.

The chart contains a few subconcepts that could be discovered by children during the unit or modular study. Many other subconcepts may be encountered in their readings and independent studies. Space does not permit the inclusion of a more comprehensive list. It should be clearly understood that concepts are understood at different levels of sophistication. Effective teaching results in better understanding for all children at all levels.

Please note that the coverage of topics is flexible and that the emphasis of learning is on gaining a deeper insight into major conceptual schemes. Although the coverage of many science topics has been de-emphasized, it is suggested that all students be exposed to experiences in the major divisions of science which include living things, matter and energy, and earth and space studies.

Processes

Science education involves more than an organized body of knowledge which is held together by conceptual schemes. It also involves processes. Scientific literacy requires both an understanding of the conceptual schemes and proficiency in the processes involved in scientific investigations. Some processes are more basic than others and need to be developed early in the science program. Teachers are urged to provide opportunities for children to develop the following processes:

- **Observing**—Using all of the senses: hearing, seeing, tasting, smelling, feeling.
- **Classifying**—Identifying objects or ideas and classifying them into groups according to similarities and differences. Children are encouraged to invent their own systems.
- **Measuring**—Using both standard units of measurements or invented units, children should have experience in measuring quantities (length, weight, volume, time, temperature, etc.)
- **Predicting**—Many children guess with little difficulty. Prediction, however, requires a higher level of thinking. Predictions are also based on some known data or evidence. Simple graphs and charts are helpful for children to use as a basis for prediction.
- **Inferring**—The ability to infer is basic to the formulation of hypotheses. Children can learn to infer when they can distinguish between an observation itself and an inference *about* an observation.
- **Communicating**—Clear and precise communication is essential in science. There should be many opportunities for children to communicate orally, with graphs, with pictures, and, when able, in their writings.

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⑦ *Ibid.*, p. 28.
⑧ *Ibid.*, p. 20.

EXAMPLES OF SUBCONCEPTS FROM CONCEPTUAL SCHEMES

CONCEPTUAL SCHEMES Sample Module or Course	CONCEPTUAL SCHEME I (Examples) (See page 75)	CONCEPTUAL SCHEME II (Examples) (See page 75)	CONCEPTUAL SCHEME III (Examples) (See page 76)	CONCEPTUAL SCHEME IV (Examples) (See page 76)	CONCEPTUAL SCHEME V (Examples) (See page 76)	CONCEPTUAL SCHEME VI (Examples) (See page 76)	CONCEPTUAL SCHEME VII (Examples) (See page 77)
Secondary School Units Related to the Physical Sciences	Through the action of nuclear and electrical forces, protons, electrons, and neutrons associate to produce atoms.	All matter is composed of single elements or combinations of several elements and can be analyzed into these constituents by chemical processes.	In a gas the molecules move at random with a mean energy proportional to the absolute temperature.	Two bodies attract one another with a force which is directly proportional to their masses and inversely proportional to the square of the distance between their centers of mass.	A fluid has a tendency to move from a region of higher pressure to one of lower pressure; the greater the difference, the faster the movement.	Solids are liquefied and liquids are vaporized by heat; the amount of heat used is specific for a given mass and a given substance.	The nuclei of radio-active substances undergo transformation to a new state with time.
Secondary School Units Related to the Biological Sciences	Digestion results in molecules that cells can use for energy and that cells can use to make their own specific structure.	In general, living things give evidence of a definite progression from simple to complex forms.	Living things are not distributed uniformly or at random over the surfaces of the earth, but are found in definite zones and local regions where conditions are favorable to their survival.	Changes in the genetic code determine the changes which occur in living things.	In a living organism, adaptation of action and adaptation of structure and function are necessary for survival.	Food, oxygen, certain optimal conditions of temperature, moisture, and light are essential to the life of most living things.	Living things have changed in the past and continue to change.
Mystery Powders	White powders may have different characteristics. ● Substances can be identified by their physical properties. ● There are many kinds of materials.	Matter exists as elements, compounds, and mixtures.	White powders can be identified with chemical tests.		Chemical reactions reach an equilibrium.		A chemical change takes place when new products are formed.
Behavior of Meal Worms		Meal worms belong to one particular group of animals because they are all alike.	Meal worm behavior can be analyzed on a statistical basis.		Meal worms react to stimuli. ● Meal worms need a particular kind of food to live and to carry on life processes.		Meal worms are a stage in the life cycle of a beetle. ● The rate at which meal worms change form depends on environmental conditions.
Observing Weather	Air is real. ● Water evaporates into the air.	There are different kinds of clouds in the air.	Atmospheric conditions can be measured. ● There are local weather patterns.	Air can exert a force. ● Air moves from one place to another.	Clouds and rain form in the atmosphere.	Water exists in different forms. ● Heat causes water to evaporate more quickly. ● Water condenses on cold objects..	Atmospheric conditions change continually.
Rocks	Rocks differ in their composition and properties.	Rocks can be grouped according to similarities and differences.		Some chemicals react on some rocks.		Solids have a definite size and shape.	
Growing Seeds		Seeds can be classified.	Plant growth can be measured. ● Plants grow at different rates.	Roots tend to grow down. ● Stems tend to grow upward.	Plants need water to grow. ● Corn seeds can germinate without soil.		Seeds take time to germinate. ● Seeds grow into plants. ● Plants take time to grow.

The following processes are more complex and are dependent on the foregoing processes.

- **Formulating Hypotheses**—Answers to many inquiries are simple. Many questions may be answered by asking an authority or by referring to the proper book or reference material. Answers to other inquiries require much further scrutiny. The child's initial general observations and informal manipulations may result in an attempt to investigate further or to experiment. A hypothesis based on his premilinary experience and his inferences is necessary to establish the direction of his efforts. Formulating intelligent hypotheses requires practice.
- **Experimenting**—Experimenting, as opposed to verifying, indicates a quest for an understanding of an uncertain phenomenon or an answer to an unsolved problem. The organization of this task is usually complex and takes many forms. One important aspect of such activity is the setting up of controls with which experimental results may be compared.
- **Interpreting Data**—Through observation and measurement, children will collect data. Can they organize and interpret these findings?

Resource Materials

The materials used in science instruction may vary from simple to complex. Materials and equipment are valuable only as they are useful in helping a child to discover meaning, or to clarify or enlarge a concept. Materials should not dictate the program. Sufficent equipment is essential, however, to broaden the possibilities for study.

The facilities of the instructional materials center, the school or community library, and multiple textbooks offer types of resources.

In the discovery approach to science learning, the text becomes a friend, not a master. It is a source of specific factual knowledge, ideas, techniques, and illustrations. This source is tapped as the need arises.

The use of a text, as a day-by-day lesson plan will tend to destroy the discovery potential in a class. Used as a familiar resource, it has considerable value; used as a map for "where we are going," it is self-limiting in its usefulness.

Many simple household items can become science equipment. Simple equipment is usually sufficient for elementary school projects, but many commercial items of equipment and supplies are available. A variety of resources enrich the environment for children and broaden the possibilities of science understandings. Other items from the total environment will provide materials for observation.

Evaluation

PROGRAM

In evaluating a science program—

1. Purposes of evaluation must be clearly stated.
2. A variety of evaluation techniques should be employed.
3. Evaluation should be made in terms of how effective the teaching has been.
4. Evaluation should be made in terms of how carefully the planning has been done.
5. Evaluation should be made of the types of concepts children are learning.
6. Evaluation should be made of the depth of children's learning.
7. Evaluation should be made of the variety of resources available.

Cooperative evaluation by pupils and teacher and by teacher and school administrator(s) is essential to good program planning. In addition, each teacher must constantly evaluate the program, teaching techniques, and what pupils have learned in terms of the goals for science education.

SCOPE AND CONTENT

When the scope and content of the program is evaluated, questions such as these may be considered. Is the program developed so that pupils—

1. Have an acquaintance with and an understanding of the natural environment?
2. Are developing competence in applying problem solving techniques to problem situations?
3. Are developing a functional and a more sophisticated understanding of the major conceptual schemes?
4. Have an appreciation of the aesthetic and orderly qualities of natural phenomena?
5. Are encouraged to search for truth as we know it by applying objectivity, reason, observation, and experimentation to their work?
6. Are encouraged to use first-hand experiences in the learning process?
7. Have a widened interest range in daily experiences?
8. Are improving their ability to observe, classify, measure, predict, infer, communicate, interpret, hypothesize, and experiment?

INSTRUCTION

Questions related to providing opportunities for pupils to participate successfully and continuously in the learning act must always be considered by a teacher as he plans and as he teaches. Questions such as the following may be helpful.

1. To what extent is provision made for direct experiences that extend pupils' concepts and encourage their curiosity?
2. To what extent is the environment planned to motivate pupils to ask questions which will probably turn up data?
3. What evidence is there that the questions will direct pupils' attention so they may discover existing relationships?
4. To what extent are the teaching plans problem oriented?
5. What evidence is there that the classroom climate is permissive to the expression of pupils' ideas?
6. To what extent is time really allowed for thinking?
7. What evidence is there to indicate that provision is made for the pupil to discover situations where newly learned skills and knowledges are applied?

Physical Education and Health

Physical Education

The physical education program is a planned program of educating the child physically. A sound physical education program can and should complement any and all academic programs. Motor responses of a child are the earliest behavior responses of the human organism and represent the beginning of a long process of development and learning. Through these first physical explorations, the child begins to find out about himself and the world around him. His experimentation and his motor learning become the foundation upon which knowledge is built. Many studies indicate that early childhood mental and physical activities are closely related, and motor activities play a major role in intellectual development. To a large extent, all forms of higher behavior develop out of and have their roots in some phase of motor learning.

Scope

Directed physical education activities are designed to assist each pupil in becoming a harmoniously integrated individual physically, mentally, emotionally, and socially.

The particular application of this goal for physical education is in the areas of biological growth, neuromuscular development, and social and emotional development.

- **Biological Growth**

  Development of—

  optimal organic functioning
  skeletal strength
  muscular strength
  endurance
  symmetry.

- **Neuromuscular Development**

  Development of—

  organic vigor
  normal symmetrical growth
  good posture
  strength
  endurance
  speed
  agility
  balance
  flexibility
  relaxation
  coordination.

- **Social and Emotional Development**

  Development of—

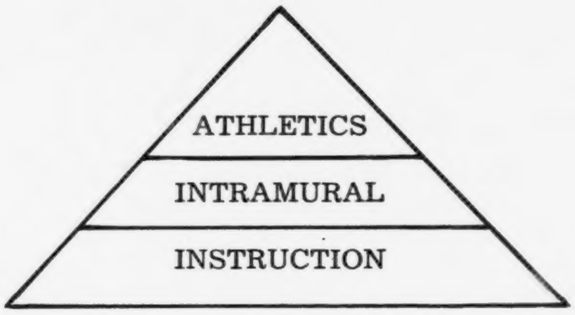
  human relationships
  self-realization
  economic efficiency
  civic responsibility.

Directed physical education activities will aid students in the development of—

self-control
self-direction
assumption of responsibility as leaders and followers
sportsmanlike attitudes toward defeat and victory
a desire for health and physical fitness
an appreciation of health and physical fitness.

Instruction

The scope is realized through the physical education program which may be diagrammed as follows:



INSTRUCTIONAL PROGRAM

Oregon elementary schools are expected to develop physical education programs with 100 percent participation of pupils. A daily program of directed physical education activities in addition to physical activities during recess, after school hours, or during noon hours is necessary to meet this goal. Such a program should include at least 20 minutes of active physical education for boys and girls in grades K-3, 25-35 minutes for pupils in grades 4-6, and at least 35-45 minutes daily for pupils in grades 7-8. Physical education instruction should be scheduled separately from that of other areas of the curriculum.

The complete scope and sequence for physical education as adopted by the State Board of Education on February 14, 1962, is given on pages 82 and 83.

Assistance in planning a program, directions for games, and activities, and instructional suggestions will be found in the latest edition of the publication *Physical Education in Oregon Elementary Schools* issued by the State Department of Education.

INTRAMURAL PROGRAM

After a school has developed a sound physical education program that has continuity, progression, and a planned program of evaluation, consideration may be given to an intramural program. An intramural program refers to competitive sports and activities carried on outside the regular physical education class in which all participants are in the same school. These activities often grow directly out of the instructional program and provide further opportunities for children to use their skills in controlled, regulated activities, but on a voluntary basis. The physical activity needs of most children will be met through their basic physical education programs and their intramural programs.

ATHLETICS PROGRAM

After a school has developed a successful program in physical education and intramurals, it may give consideration to extramurals and interschool athletic competition. This program is for the student who would like to excel in physical activities. Such a program provides proper guidance and direction from school authorities for pupils talented or gifted in physical activities. Further information on athletics programs may be found in the State Department of Education's publication, *Principles and Policies for Athletics in Grades 6, 7, and 8 in Oregon Schools,* 1962.

Health Education

The general purpose of health education is to assist in the optimum development of adequate understandings, wholesome attitudes, and desirable practices relating to the mental, physical, social, and emotional health of the individual, his family, and his community.

Scope and Sequence

The scope of the program is organized under the following four major headings:

- **Personal Health**—To help prepare the individual to become intelligently self-directing in health matters relating to structure and function of the body, personal hygiene and grooming, nutrition, wholesome activity and rest, and the choice and use of health products and services.
- **Community Health**—To help prepare the individual to assume his role as a responsible member of his community in matters relating to communicable and noncommunicable diseases, health services and agencies, sanitation, and vocational opportunities in the field of health.
- **Mental Health**—To give the individual a better understanding of himself and others and to develop desirable personality and character traits which will enable the individual to live harmoniously as a member of a family and of society. To develop desirable attitudes and practices relating to the health effects of alcohol, other narcotics, and tobacco based upon the most recent scientific findings.
- **Safe Living**—To develop in the individual desirable attitudes and practices relating to his safety and that of others, through an awareness and prevention of common hazards, and to develop ability in first aid.①

The complete scope and sequence for health education as adopted by the State Board of Education on February 14, 1962, is given on page 84.

Content

The role of the teacher in health education is one of helping children to fully appreciate that good health is basic and essential to successful living. Without good health, few persons attain their objectives in life.

In order to develop good health and safety habits and practices, children need to have a background of accurate, scientific information; to develop desirable attitudes; and to develop an appreciation of the values of good health. Health knowledge should include information relative to personal health and the health services available in the community. A study of local community health problems which may still be unsolved might be a profitable and practical approach to the curriculum, particularly for upper-grade elementary school boys and girls.

The teacher should encourage the child to see the relationship of good health habits and practices to his everyday life at home, at school, and in the community. No amount of knowledge will improve health unless the knowledge is applied. Practices selected for study should emphasize those with choices which need to be made often but which are not wholly repetitious. Health instruction is often most effective when taught in individual units of study rather than as class projects. In this way the problems of particular value to youngsters may be answered, and health education may become a real part of one's behavior.②

Instruction

The health education program must be carefully planned if it is to achieve its broad purpose. The health education program makes use of a wide variety of instructional resources. These resources may include field trips; people; films and filmstrips; television and radio programs; dramatizations; and printed material including magazines, brochures, and a variety of textbooks. The textbook is often better used as a resource to the project under consideration than as a reader to be read "around the class."

There may be opportunities for children to experiment and, through their own study, to discover and state basic health concepts for themselves. Concepts thus stated are often more meaningful and are better understood than those which are developed through the teacher's lecturing.

The unit approach is especially well suited to health instruction and is recommended as a way of planning health education programs. Health units thus developed are often closely related to science

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① From the scope and sequence for health education adopted by the State Board of Education in 1962.

② For assistance in planning the elementary school health program, see the latest edition of the Department's *Health Education in Oregon Elementary Schools.*

PHYSICAL EDUCATION SCOPE AND SEQUENCE

	GRADES K, 1, 2, 3			GRADES 4, 5, 6			GRADES 7, 8		
	Activities	Desired Physical Outcomes	Other Outcomes	Activities	Desired Physical Outcomes	Other Outcomes	Activities	Desired Physical Outcomes	Other Outcomes
SELF TESTING	Basic skills of movement (walk, jump, run, leap, climb, etc.) Simple stunts Tumbling (simple) Use of apparatus Rope jumping	Relaxation Strength Endurance Skills Good posture Flexibility	Safety Enjoyment Self-confidence Courage Feel satisfaction of accomplishment	Basic skills of movement Exercises Stunts Tumbling Simple apparatus Track and field Combatives (elementary forms)	Improvement in: Strength (muscular) Coordination Endurance (muscular) Skill Good posture and body mechanics Relaxation Flexibility Balance Cardio-respiratory endurance	Safety Enjoyment Self-confidence Courage Satisfaction in accomplishments Knowledge of basic track and field rules Knowledge of proper safety procedures Understand the purpose of warmups Use and care of equipment	Basic skills of movement Exercises Progressive resistance exercises (weights for boys) Gymnastics: tumbling stunts apparatus, pyramids Combatives: hand wrestle, Indian wrestle, rooster fight, etc., wrestling (boys) Track and field	Muscular strength and endurance (especially of the trunk, arms, shoulders) Coordination Agility Balance Skills Flexibility Symmetrical growth Organic vigor Cardio-respiratory endurance Posture	Safety Joy in competition Satisfaction in accomplishment Good sportsmanship Aggressiveness Cooperation Alertness
RHYTHMS	Fundamentals of movement (walk, skip, jump, hop, run, leap, gallop, slide) Creative rhythms (imitative, identification, dramatic and story play) Moving through space in vigorous activities Singing games Folk dances (simple)	Beauty of movement Body control Ability to keep time to music Good posture Coordination	Enjoyment Self-expression Concepts of rhythm Social adjustment Overcoming shyness Etiquette Insight into cultures of other countries Creativity	Fundamentals of movement Creative rhythms Folk dances Square dances Marching	Beauty of movement Body control Keeping time to music Coordination	Joy of movement Self-expression Poise Concepts of spatial relationships in the dance figures Etiquette Insight into own and other cultures Improvement of boy-girl relationships	Review of fundamentals of movement Folk dances (intermediate) Square dances (intermediate) Social dances (beginning) Modern dance Marching	Ability to keep time to music Beauty of movement and body control Cardio-respiratory endurance Balance Coordination	Poise and self-confidence Understanding of own and other cultures Courteous behavior Improved boy-girl relationships Recreational carry-over
GAMES AND SPORTS	Games of low organization—Examples: brownies and fairies Classroom games—Bean bag: throwing for distance	Muscular development Endurance Agility Improvement of basic skills Development of speed and running Cardio-respiratory development	Enjoyment Sportsmanship Proper competitive spirit Ability to understand and follow directions Learn to listen Proper use of equipment (care and safety)	Group games: Two deep Dare base Softball Lead-up games to sports: Line soccer Kick football (boys) Newcomb Free-throw end ball Long ball Recreational games: Deck tennis Shuffleboard Horse shoes Paddle tennis Archery	Endurance: cardio-respiratory muscular agility Improvement of basic skills and running speed Learning sports skills Safety	Recreational carry-over (play days and sports days) Enjoyment Leadership qualities Sportsmanship Cooperation with peers Ability to listen to and follow directions Appreciation of games Development of team spirit Enjoyment of competition Knowledge of basic rules, tactics, strategy Self-discipline Proper care and use of equipment	Field hockey (modified) Soccer Field ball Touch football (boys) Volleyball Basketball Broncho tag Recreational games Bowling Softball Baseball (boys) Archery Golf Tennis Badminton	Endurance: cardio-respiratory muscular Strength Agility Coordination Growth Organic vigor Increased skill Safety habits	Enjoyment of competition Team spirit and responsibility Cooperation Increased knowledge of rules, strategy, tactics Increase self-discipline Sportsmanship Appreciation of game Recreational carry-over: intramurals, sports days, play days, interscholastic athletics (boys) Proper care and use of equipment Increased leadership ability

(Physical Education Scope and Sequence continued)

	GRADES K, 1, 2, 3			GRADES 4, 5, 6			GRADES 7, 8		
	Activities	Desired Physical Outcomes	Other Outcomes	Activities	Desired Physical Outcomes	Other Outcomes	Activities	Desired Physical Outcomes	Other Outcomes
RELAYS	Simple: Large space and classroom Examples: Object-passing relay Skipping or hopping relay Simple stunt relay	Endurance Agility Improvement of basic skills Running Speed Coordination	Enjoyment Sportsmanship Proper competitive spirit Ability to understand and follow directions Learn to listen	Recreational relays Co-recreational relays Basic skills of team sports	Coordination Agility Speed Increased degree of skill	Ability to organize (for use in other activities) Team spirit Joy of competition Observe the rules Sportsmanship	Relays (increased level of difficulty and vigor) Sport skills relays	Agility Speed Coordination Increased skill	Team spirit Sportsmanship Cooperation Enjoyment of competition Ability to organize (for use in out-of-school situations—picnics, Scout meetings, parties)
AQUATICS	Seven years of age is the desirable age to learn to swim if facilities are available	Basic swimming skills How to care for oneself in the water	Respect for water and its dangers Fun	Learn to swim Elementary forms of water safety Boat safety	Ability to float and tread water Ability to use basic strokes Ability to care for oneself in water	Pleasure Self-confidence in water Respect for water and its dangers	Swimming strokes (intermediate) Water safety techniques Water games Diving Junior life saving instruction Boat safety: ocean river lake	Cardio-respiratory endurance Increased skill Ability to handle small craft Rescue techniques	Pleasure Enjoyment of competition Respect for water and knowledge of its dangers
OUTDOOR EDUCATION	Family camping Field trips Nature study Simple fishing skills			Woodcraft Field trips and projects Water safety Gun safety Fishing skills Family camping Conservation Winter games: fox and geese sledding Hiking	Ability to use firearms safely Proper use and control of fire Sanitary camping practices Skill in winter games Survival in the out-of-doors	Appreciation of the out-of-doors Knowledge of good safety practices in the out-of-doors	Camping techniques Outdoor cooking Conservation Use and care of firearms Fly casting, bait casting, spin casting Winter sports: skiing skating tobogganing Hiking	Ability to set up a camp, build and control fire, and cook an outdoor meal Ability to pace and measure distance and follow a trail Ability to use firearms safely and to care for them properly	Know and observe rules and regulations governing life in the out-of-doors Know how to select, use and care for outdoor equipment

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NOTE: Teachers in need of the scope and sequence for Grades 9—12 should request a **Physical Education Scope and Sequence Chart** from their district or intermediate education district superintendent. This chart gives the complete scope and sequence for physical education in grades K-12

HEALTH EDUCATION SCOPE AND SEQUENCE

Areas	Units*	Grades K, 1, 2, 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
PERSONAL HEALTH	PERSONAL HYGIENE	Body care. Clothes care. Attitude of self-appraisal relative to personal practices and posture.	Value and care of the special senses. Care of hair, nails, skin, and teeth.	Individual practices and their interrelationship to home, school, and community.	Dental health. Special senses.	Human growth and development, and individual differences. Grooming. (10 class periods)	
	NUTRITION	Development of good eating practices. Sanitation and transportation in handling food. Variety of foods in the diet.	Nutritional needs. Food selection when eating between meals. School lunch.	Processing of food.	Digestion, assimilation, and excretion.		
	WHOLESOME ACTIVITY AND REST	Need for wholesome physical activity, rest, sleep and relaxation.	Relationship of muscles and bones to posture and movement.		Relationship of wholesome activity to muscular and skeletal growth. Need for varied activities, and relaxation.		Relationship of wholesome activity to the development of skeletal, muscular, circulatory, respiratory, and excretory systems. Need for rest, sleep, relaxation, and recreation. (25 class periods)
	CHOICE AND USE OF HEALTH SERVICES AND HEALTH PRACTICES		Discussion of medical and dental examinations.				
COMMUNITY HEALTH	PREVENTION AND CONTROL OF DISEASE	Individual responsibility for community health practices.			Development of modern disease prevention.		
	COMMUNITY HEALTH SERVICES AND AGENCIES	Health. Sanitation. Protection.	Water and food sanitation.			Contributions of organizations and agencies. Disposal of waste materials. (10 class periods)	
MENTAL HEALTH	PERSONALITY AND CHARACTER DEVELOPMENT, INDIVIDUAL ADJUSTMENTS TO SOCIETY, AND FAMILY LIVING	Outgrowth of self-centered feelings. Social cooperation. Independence.	Sportsmanship and fair play. Clean thoughts and moral values.	Characteristics of growth. Emotional control. Getting along with others. Responsibility.			Making friends. Getting along with members of the family. Courtesy and good manners. (5 class periods)
	ALCOHOL, OTHER NARCOTICS AND TOBACCO		Effects of alcohol and tobacco on the body. (Taught with nutrition)			Nature and effects of alcohol, tobacco, other narcotics and drugs. Analysis of advertising. Laws and regulations. (10 class periods)	
SAFE LIVING	HOME SAFETY	Emphasis on burns, falls, poisons, electrical and play hazards.		Emphasis on electrical hazards and prevention of fires, falls, and burns. Civil defense.		Personal and mechanical causes of accidents. (3 class periods)	
	SCHOOL SAFETY	Playground, gymnasium, hallway, classroom, bus. Safety patrol rules. Fire drills. Civil defense drills.	Bicycle safety.	Emphasis on fire, playground, gymnasium, and hallway. Safety patrol. Civil defense.	Introduction to first aid.	Safety in school activities—physical education, shop, athletics, fire drills. (2 class periods)	Civil defense. (Taught with first aid.)
	COMMUNITY SAFETY	Pedestrian safety. Strangers. Animals.	Camp safety. Water safety.	Civil defense.	Water safety and small craft.	Safe use of firearms. Hunter safety. Safety relating to explosives, fireworks, rockets and blasting caps. (10 class periods)	Red Cross Junior First-Aid course. (15 class periods)

* K, 1, 2, 3, 4—The topics outlined should be taught as integrated materials.

and to social studies. Sometimes concepts developed in science or in social studies are so closely related to health units that they may be directly or indirectly involved in the health education program.

Health and physical education are closely related. In the health class children discover the need for physical education activities. Learning to relax and to balance types of activities is important throughout life. This knowledge may also be related to leisure time recreation, perhaps leading to the development of skills and attitudes used throughout life.

Evaluation

Perhaps more than in any other area of the instructional program, instruction in health can be evaluated by changes noted in specific behavior. The teacher should appraise the program in terms of individual children.

Constant evaluation of the health needs of individual children is essential. Answers to questions such as the following will help the teacher to measure the effectiveness of instruction in health education:

- How well is the program adapted to this particular locality?
- How am I helping each child to be increasingly aware of the factors which make for good health?
- How am I helping each child to grow and develop good personal health habits?
- How well are children applying their knowledge of safety?
- How well do the children understand and appreciate community services which contribute to their health and well-being?
- Are there evidences which would indicate that problems of mental health are beginning to develop?
- Is the classroom environment conducive to the development of healthy, happy, well-adjusted children?
- What evidences do I have that desirable attitudes and habits are becoming a part of the child's life?
- Have I used a wide variety of resources in planning the instructional program?
- What evidences do I see in children's behavior to indicate that they are applying their knowledge of health education?

Foreign Languages

Increasing interest in foreign languages has resulted in the introduction of FLES (Foreign Language in the Elementary School) programs. Such programs in the elementary school are not ends in themselves. Successful programs reflect an unbroken sequence extending through grade twelve. Instruction in grades three and four, unless coordinated with the upper grades, contributes very little toward the education of the child, and it is doubtful whether this type of program can be justified. However, as part of a six- or ten-year foreign language sequence, the elementary school portion can make an important contribution to the objectives of modern foreign language instruction and to the educational development of the child.

Scope

The scope of the foreign language program in the elementary school is stated through its objectives. These are:

- Development of proficiency in the language
- Appreciation of the culture from which the language is derived

Skills

> The four skills to be developed in foreign language study are listening comprehension, speaking, reading, and writing.
>
> **Listening Comprehension**
>
> The student should understand the foreign language as it is spoken by native speakers in situations similar to his own experience. . . .
>
> **Speaking**
>
> The student should speak the foreign language in everyday situations with reasonable fluency and correctness, and with pronunciation acceptable to a native speaker of the language. . . .
>
> **Reading**
>
> The student should read the foreign language easily and without conscious translation. He should be able to read books and periodicals appropriate to his age level (biography, history, geography, science, novels, short stories, poetry, other nonfiction). He should read rapidly for the sense of the story and more deliberately for fuller understanding.
>
> **Writing**
>
> The student should be able to write descriptions, reports, and informal letters with clarity and correctness. . . .①

It should be noted that these skills will not all be attained at the elementary level—nor can they be achieved in the traditional two-year high school sequence. Success in FLES programs is in terms of the contribution to the mastery of these language skills in an extended language sequence. Initial steps toward the attainment of these skills is taken at the elementary level where readiness activities prevail and where less emphasis is placed upon the reading and writing skills. At the elementary level emphasis is placed upon learning activities primarily based upon an oral approach. From a sequential program, well planned FLES can make a genuine contribution to language competency, and thus be an important part of the child's early education. The program objectives place a heavy responsibility upon the FLES teacher and the school system to offer more than an exploratory program in which a few phrases, songs, and games are taught. Exploratory instruction of this nature should not be designated as "foreign language" or confused with the objectives of a total program.

Initiating the Program

The third year of school is generally advocated as the time to begin foreign language instruction. It has been demonstrated that these pupils can make satisfactory progress in learning a second language without recourse to formal grammar or literal translation. While there is some evidence to indicate that boys and girls in kindergarten, first, and second years in school can learn a second language, the third year is recommended as the best time for beginning foreign language instruction. Maturity, language perception, and adjustment to the school environment are developed further than at earlier years.

It is recommended that foreign language instruction in the elementary school should not be implemented unless the school system provides a continuous program through the high school. Furthermore, a school system should work *first* toward the establishment of the seven-twelve grade language sequence. This program may then be extended to the lower grades when the school system is committed to and provides continuity of instruction by qualified teachers.

When schools first implement a FLES program, it is recommended that foreign language teachers and administrators from all levels of instruction be involved in the overall planning. For any program, it is important for teachers in the elementary and secondary schools to plan articulation procedures to assist pupils in making a successful transition between elementary instruction and that offered in the secondary school. One aspect of such planning is to assure that children from a FLES program would not be placed in the first-year course at the high school. Such a practice would indicate that either no learning has occurred at the elementary

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① Willmarth H. Starr, Mary P. Thompson, and Donald D. Walsh, *Modern Foreign Languages and the Academically Talented Student*, National Education Association, 1201 16th Street, N.W., Washington, D.C., 1960, pp. 17-18.

level, or that the secondary school demands more than can be expected of the incoming pupils. Such placement practices can only lead to disillusionment with the purposes and values of a foreign language.

It is desirable for elementary foreign language programs to be a part of the child's total education and, as such, an integral part of the school's program. Scheduling should be definite and regular when FLES is important enough to be included in the curriculum, and the district should offer instruction within the regular schedule. It is recommended that all pupils be offered an opportunity to participate in the first language learning experience. At the upper-elementary level, more extensive instruction may be given to those students showing marked aptitude for language study.

Instruction

INSTRUCTIONAL PRACTICES

The audio-lingual approach to language mastery should be used in the elementary schools to develop comprehension of the spoken language, and to develop the speaking, reading, and writing skills. The initial presentation of the language should be made without recourse to the printed word. The length of this pre-reading period will vary according to the materials available and length of instructional sessions. When reading and writing are introduced, it should be through material already mastered by successful oral experiences.

INSTRUCTIONAL MATERIALS AND EQUIPMENT

The materials for an elementary school language program should implement the objectives of modern language teaching. Materials should not be based on the study of formal grammar nor on the memorization of vocabulary lists. Ideal materials provide pupils with a series of carefully planned steps to an ever-increasing command of the language and the systematic reentry of all structures and vocabulary items. All materials must be appropriate to the interest level of the pupil and should never include high school texts at the elementary level.

New FLES materials are now being published and it is expected that more will be available in the next few years. Schools should carefully review all such materials prior to adoption. It is advised that all language teachers be included in the evaluation of materials considered for use in the elementary grades. A list of available materials may be obtained from the State Department of Education upon request.

Elementary-grade boys and girls can more easily learn the sound patterns and intonation of a foreign language than can older students. This is of major significance to a FLES program. Children can also learn incorrect language if they are not provided with an accurate model to imitate. For this reason, records and tapes should be considered an integral part of the instructional program and should be provided for each teacher.

TELEVISED FOREIGN LANGUAGE INSTRUCTION

Recent research based upon two years of televised foreign language instruction in the elementary school indicates that televised FLES teaching can be successful. However, research also indicates that the success of foreign language teaching by television varies greatly from class to class, and even more from district to district. Where the program has teacher interest and administrative support, it is generally successful. Where the interest is low, performance of classes is more uncertain. Other important conclusions are:

> Televised instruction alone without appropriate follow-up by the classroom teacher is largely ineffective.
>
> Tape recordings and records may be used as follow-up activities by the classroom teacher to achieve results comparable to those obtained by teachers directing their own programs.

Research clearly demonstrates that the use of television *per se* will not produce successful results. These suggestions are offered as essential to the effective use of foreign language telecasts:

- Classroom teachers must have a clear understanding of the principles involved in modern language instruction, as well as a high level of interest in the success of the program.
- Sufficient time must be allowed in the classroom schedule to introduce the lession prior to the television broadcast, and for follow-up after the lesson. At least 15 minutes should be allotted for practice on days when there is not a television lesson. It is essential that pupils have daily contact with the foreign language.
- The classroom teacher must have all the necessary guides, student practice records, and/or teacher practice records. Where these are lacking, pupils cannot be expected to make satisfactory progress.
- Teachers should follow the appropriate television in-service broadcasts and should participate in language workshops.
- Classroom teachers lacking language skills should not be expected to conduct language lessons. Use should be made of the prepared records that accompany each course until such time as the teacher has achieved acceptable proficiency in the language. Teaching skills may be improved by taking courses in the language either at night school or in the summer.
- The classroom teacher makes a most important contribution by demonstrating her interest in the language and by participating in the lesson with the pupils. The classroom teacher may also help the television teacher by encouraging pupil response at the proper time through use of appropriate gestures.
- Teachers should be given incentives and encouragement by the district to improve linguistic skills and knowledge of the relevant culture through additional study in this country and abroad.
- Districts which implement a FLES program which require the services of classroom teachers should give recruitment preferences to teachers with education in the desired language.

School District Responsibilities

SUPERVISION AND COORDINATION

As noted previously, FLES instruction will not meet the objectives of a language program unless there is effective articulation among elementary, junior, and senior high schools. It is recommended that regular systemwide meetings be held to discuss and plan various aspects of the language program. New developments in language teaching which affect all levels can be effectively presented during these sessions. In order to conduct these sessions and to assist in the coordination of the various levels, it is recommended that one teacher in the district be assigned or elected to the responsibility of serving as program coordinator. In larger school districts, this responsibility would undoubtedly entail some released time from classroom duties. The failure to provide adequate leadership at the district level is responsible for the lack of direction in many FLES programs.

IN-SERVICE

The local school district should assume responsibility for providing effective in-service training in methods and language skills and for indicating the responsibilities of all teachers involved in the program. Because many FLES programs are new, some teachers may lack the necessary language skills, and/or an understanding of appropriate instructional techniques. It is important, therefore, that provision be made at the district level to improve those skills associated with a FLES program. The in-service may be directed by an elementary teacher who is skilled in the language and audio-lingual techniques, or by a high school teacher who knows the elementary school language program.

The State Department of Education has a consultant who will assist districts at any phase of the program. Districts are encouraged to utilize these services, especially in the initial planning stage, as well as current publications issued by the Department.

Evaluation

The degree to which a child shows achievement and growth towards the objectives as stated in the scope forms the basis for an evaluation of language learning. The degree to which FLES is organized as a total program forms the basis of program evaluation. Opportunities for studying a foreign language, use of materials, and instructional practices are the bases for evaluation of instruction. The success of any foreign language program is dependent upon total commitment to the program, thorough planning for its initiation, quality of instruction, and teacher competency in the language taught.

Home and Family Life Education

One of the major responsibilities of education is that of helping individuals of all ages to become more effective members of homes and families. Homemaking education at the elementary level is that part of the total educational program which helps prepare boys and girls for membership in the family and is an integral part of the total educational program at each age level.

Scope

Experiences in homemaking education contribute to the child's personal development so that each may make worth-while contributions to the home and community activities according to his or her capacity.

The homemaking program helps the child—

- understand himself.
- develop an appreciation of family life and its responsibilities.
- develop an awareness of individual as well as family values and standards.
- be more perceptive with respect to the needs and contributions of family members.

Homemaking education is based on an understanding of the developmental stages and needs of all individuals and correlates family life experiences throughout the entire educational program. General and practical education are considered to be essential. Learning to plan and work, as well as live and share together through practical and realistic home and school experiences, promotes an appreciation of individuals and provides opportunities for increased skill in human relationships. The practical application of fundamental concepts learned in other subjects enriches the child's learning.

Implementation

The "home base" teacher at the primary level does most of the teaching, with homemaking teachers assisting. At the intermediate level and above, programs may be taught by homemaking teachers in teaching teams. The homemaking teacher has the responsibility for contributing to and cooperating with other teachers working for continual improvement of curriculum.

The chart on page 90 offers suggestions for teaching homemaking through integration with other disciplines. These suggestions are only a few examples of learning experiences, from the beginning to more complex problems, which help students relate to home and family. One suggestion for developing a homemaking learning situation in each discipline precedes the chart.

At the upper-grade level, when a school does not provide a laboratory situation, home and family life education will continue to be taught through integration with other disciplines. For suggested experiences at this level, see pages 104-114 of the *Guide to Junior High School Education in Oregon*, 1963,① which includes state-adopted texts and supplementary references. It may be secured from the county school office.

HOME AND FAMILY LIFE LEARNING SITUATIONS IN OTHER CURRICULUM AREAS

MATHEMATICS

Concept

The larger the units of measure, the fewer units needed.

Understandings

1. Graduated and nested measuring cups make for accuracy.
2. Equal measures are:
   3 tsp. —1 tbsp.
   16 tbsp.—1 c.
   2 c. —1 pt.
   2 pts. —1 qt.
   4 qts. —1 gal.

Activities

1. Display measuring devices.
2. Display poster of equal measures.
3. Measure water to show equal measure.
4. Measure flour to show equal measure.
5. Read cooky and punch recipes.

HEALTH

Concept

Eating breakfast is conducive to good health, mental alertness, physical efficiency, and a pleasing disposition.

The aim of this unit is to encourage children to eat balanced breakfasts, and if the need arises, to be able to prepare their breakfasts.

Understandings

1. Importance of building healthy bodies
2. Ways of keeping body healthy
3. Importance of cooking measures

Activities

1. Study "basic four" food groups.
2. Learn table manners and table setting.
3. Plan simple breakfast menus such as: orange slices, buttered toast, cocoa.
4. Plan grocery order.
5. Study recipes for cocoa; measure dry ingredients.

SCIENCE

Concept

Man uses plants in many ways.

Understandings

1. Much of our clothing comes from plants.
   a. Cotton requires a long growing season; therefore, it is grown mostly in our southern states.
   b. Flax, from which linen is made, requires a cool northern region. It is grown mostly in Ireland, Belgium, France, and Russia.
2. Some of our clothing comes indirectly from plants.
   a. Wool comes from sheep raised on grass.
   b. Silk comes from worms raised on mulberry leaves.

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① *Homemaking Education in Oregon Secondary Schools*, 1965, also includes the same planned program for grades seven and eight.

Activities

1. Discuss fibers that come directly from plants. Show pictures and samples of raw fiber and material.
2. Have dirt, pot, and sand ready. Assist child in planting some cotton seeds in one pot and flax seeds in another. Discuss care of these plants.
3. Examine fibers and material under microscope.
4. List the materials which come indirectly from plants.

SOCIAL STUDIES

Concept

Early life in our community was different from life today.

Understandings

1. Families had to produce their own food: milk, butter, eggs, bread, fruit, vegetables, meat.
2. The Indians taught the settlers to smoke salmon and to dry deer meat and berries.
3. Food for the entire year had to be grown during the summer months.
4. Food was preserved under water, underground, and by drying and smoking.

Activities

1. Discuss foods eaten by first settlers.
2. How do they differ from foods of today?
3. They brought many recipes from their homelands. What foods did the Indians teach them to prepare?
4. What influence did the weather have on their eating habits?
5. How did they store foods for winter? Did they can? Freeze?

ARTS AND HANDICRAFTS

Concept

Handmade gifts give pleasure to family members.

Understandings

1. Help children develop discriminating tastes through some knowledge of art principles.
2. Help children feel satisfactions through giving.
3. Help children recognize pleasing color harmonies.

Activities

1. Present pleasing color harmonies.
2. Discuss art principles through showing types of line, good proportion, etc.
3. Make simple gifts: ceramics, animal books for small children, button and buttonhole in felt for small children, tool case, silver case, thimble holder.

INTEGRATING HOMEMAKING EDUCATION WITH OTHER CURRICULUM AREAS

GRADE EQUIVALENT	MATHEMATICS	HEALTH	SCIENCE	SOCIAL STUDIES	ART AND HANDICRAFTS
Kindergarten ↓ 8th	Experiences in measuring: Understanding use of measurements—cup, pint, quart, pound Understanding linear measurements—inch, foot, yard Practicing use of square measures at home Developing skill in changing measurements from one unit to another Using common fractional units Field trip to grocery store to compare weights, measurements, costs, and servings Use of money as applied to simple purchases Skill in using tools and equipment Field trip to clothing store to determine cost of a typical wardrobe	Care of the body Proper care of teeth Personal cleanliness habits Good food habits Safety and sanitation at home and school Improvement of personal and family health Growing into maturity Good manners Selection of clothing for good health Simple home nursing practices	Health rules for plants and animals—food, cleanliness, rest Protection and care of the young—animals and small children Safe practices with home equipment Man's use of plants in many ways—in fabrics, food, housing, furnishings Man's use of many parts of plants for food Science in the home—steam, gas, air Useful home electrical appliances Clothing and chemistry Development of good problem solving methods	Living together at home: Appreciating the work of mother and willingness to help Understanding the support and protection of a father. Pride in brothers and sisters Sharing in family's responsibilities—simple housekeeping, washing dishes, setting table, care of own room Enjoying family fun Improvement of self—manners, social etiquette Living together at school and in the community Social relationships outside the family circle Friendly relations with neighbors How one's community began—food, clothing, housing, entertainment Food and clothing—industry in the Northwest Our neighbors, yesterday and today Homes and families in other cultures and in other sections of the U.S.A. Appreciation of the home as a unit—family ties and customs Dolls for UNICEF—repairing, dressing, making. (Could also be related to Art and Handicrafts)	Refreshing and creative use of leisure time Appreciation of art and music in everyday life Use, understanding, and appreciation of colors Development of a satisfaction in own creative abilities Appreciation for taste in selection of home accessories and personal clothing Gifts for family and home Items for children's rooms Holiday decorations for home and school Display of hobbies and souvenirs Decoration of a classroom reading center

Industrial Arts

Scope

The scope of industrial arts for elementary school children is stated in the following objectives:

- Attainment of a reasonable degree of skill and accuracy in the use of hand tools, processes, and a variety of materials
- Learning of psychological and social adjustments through individual and group activities
- Development of desirable attitudes of cooperation, respect for self, pride and joy in accomplishment, and safety
- Exploration and development of individual interests, abilities, and latent talents.

Principles

To realize the industrial arts program the following principles are suggested as guidelines:

- Elementary industrial arts should serve to orient children to the industrial society in which they live.
- Practical experience in using tools and materials develops a reasonable degree of manipulative skills, basic understandings, and lasting appreciations.
- Industrial arts experiences contribute to effective learning in other curricular areas and desirable behavior patterns.
- Industrial arts help children clarify meanings of experiences encountered in their day-to-day learning.
- Opportunities for use of manipulative skills and appropriate materials may be derived from seasonal interests, pay experiences, the urge to create and construct, and the challenge of the environment.
- Opportunities for the individual child to think, to create, and to gain a sense of satisfaction is provided for children, some of whom may otherwise not encounter these opportunities.
- The community can be effectively involved with the school and the school-home activities can be closely related.

Activities①

The industrial arts program offers various activities, and children should grow in their abilities to use tools and materials. Using wood, metal, plastics, wood substitutes, cardboard, and other available materials, the following activities are suggested, to be introduced as the child evidences readiness and need for the activities and skills involved:

Driving nails with a claw hammer—elements of assembly
Cutting wood with a panel saw
Caring for tools properly
Observing tool safety
Boring holes with brace and bit (dowel bit)
Filing curved edges and ends
Drawing nails with a claw hammer
Sanding
Finishing with waterpaint and shellac
Laying out irregular curves and circles
Sawing irregular curves and circles with a coping saw
Filing irregular curves and circles with a half-round file
Using a "V" block and clamp to hold or support wood
Finishing with oil paints
Drawing circles with a compass
Planing edges and ends with block plane or smooth plane
Measuring with a rule
Using wood screws for assembly
Countersinking with brace and countersink
Cutting sheet metal with snips
Smoothing metal with a file
Forming wire into irregular shapes
Forming wires over various bending jigs
Cutting wire with pliers

Teacher Responsibility

Careful attention must be given to safe practices and accident prevention. Cutting tools, especially dull ones, are especially hazardous. Good housekeeping is a prerequisite to safety. Flammable materials should be carefully handled and special precautions must be observed when disposing of such things as solvents and oily rags.

If the district has a formal industrial arts program for grades seven to twelve, elementary teachers who are not familiar with the proper use and care of tools and materials should secure assistance of the industrial arts teachers.

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① For assistance in developing an upper-grade program in Industrial Arts, see "Industrial Arts Education", *Guide To Junior High School Education In Oregon*, 1963, pp. 115-122.

PART III

Supporting Areas

Kindergarten

This is a Kindergarten

Children bring a wide variety of experiences and many interests to the kindergarten and are in varied stages of maturity. Each child has his own social, physical, emotional, and mental growth patterns which are respected and developed through the use of enriching materials and experiences. The program provides experiences compatible with each child's tempo of growth. It does not seek to make all children alike, nor is it designed primarily as a "readiness program" for the first grade, yet children are learning in kindergarten. Play activities in the kindergarten program are the means for teaching.

A child just starting to school has never worked in the adult sense of the term, yet he's learned more during the first four or five years of "just play" than he may learn in any other comparable period of his life. Actually he has worked very hard during these early years. Anyone who has watched a child trying to master something difficult, for instance, struggling to learn to walk up and down stairs or beginning to use a spoon or fork to feed himself, trying to dress himself, or learning to tie a shoe, knows this.

So it is in the kindergarten. Much of what looks like "just play" is serious work for the beginners, and if properly guided, produces many important learnings. If it were possible to look into the future of the child who is now striving to nail two small pieces of wood together to make a boat, one might see him in adult life at a tool bench in the basement using his leisure hours fruitfully, building a house, or using the tools of the architect. We might see the little girl who is presently playing out a trip to the airport years later putting on a polished production of the high school drama club or in adulthood participating in community dramatic activity or enjoying the theater as an appreciative consumer. Likewise, coordination, social skills, work study skills, and many other learnings develop from the play activity of the kindergarten.

The kindergarten is an educational experience planned to meet the needs of the young child. This is usually the child's first school experience. It is the beginning of the continuous program of the elementary school. Through guided opportunities for varied experiences and the use of extensive materials and equipment, the kindergarten supplements and extends the experiences the child has had at home. As the educational processes take place, the objectives of education begin to be realized.

The kindergarten program makes a basic contribution toward helping each child secure the foundations necessary for achieving fundamental skills, basic information, appreciation, habits, attitudes, and values so far as he is able.

The statement of objectives for citizenship education forms the basis for many kindergarten activities.

> To assure children experiences in developing appreciation of, as well as expressing loyalty and respect for, our country, its ideals, its laws, and its symbols.
>
> To give children opportunities to learn and practice the democratic skills in meaningful situations; e.g.,
>
> Making choices
> Abiding by decisions of the majority
> Listening to ideas of the minority
> Delegating responsibilities
> Associating and accepting responsibilities with privileges
> Seeking creative solutions to problems
> Making compromises
> Planning and evaluating
> Assuming responsibilities of citizenship
> Learning skills of "following" as well as of "leading."①

These objectives of the elementary school form the very core of the kindergarten program. This is what a kindergarten teacher means when she talks about "socializing experiences."

The five-year-old is especially receptive to learning in the *basic skills of communication.* He is very voluble, spending much of his time in chatter. Some of the talking appears to be aimless, some of it is exploring words, some of it is trying to see what kind of emotional impact words have, but it is all part of the development of the basic skills of communication. Much of the kindergarten program is developed

> to foster the creative process as well as the creative expression and to provide an environment in which the creative ability of every child will be recognized, appreciated, and released in whatever form it appears.①

The kindergarten program deals with numbers in a very simple way. The simple arithmetic used at this stage is part of the mathematical structure of the elementary school which results in "competencies in quantitative, abstract, and logical thinking: counting, measuring, computing, and estimating in relation to their abilities"② and to their needs.

Much of the kindergarten program is designed "to stress and foster children's abilities to think independently and critically,"② of course, at a five-year-old level.

We "provide children with opportunities to acquire a wealth of knowledge and facts and to learn to use such information as tools for the solving of todays's problems."②

The kindergarten teacher tries "to assure every child the opportunity to develop physically, mentally, socially, and emotionally, in accord with his total growth pattern,"② to help each child to "have a feeling of belonging to a group . . . be respected for his uniqueness and to have his potentials strengthened . . . be challenged to develop his

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① State Department of Education, *Principles and Policies for Elementary School Organization in Oregon,* the Department, Salem, Oregon, 1962, p. 3.

② *Ibid,* p. 4.

abilities to their capacities . . . have successful opportunities both for experiences as an individual and as a working member of various size groups."①

The objectives of family life and economic and aesthetic values are also part of a kindergarten program.

The kindergarten offers a variety of experiences leading to self-dependence and self-reliance. It is designed to foster positive attitudes towards school and to be an introduction to formal study. It promotes intellectual curiosity and cultivates learning. It builds sound mental and physical health. The child acquires thinking and problem-solving skills. The foundation for much of his later life should be well established during this year.

Through experiences in group living provided each day, children learn to work and play with others. Cooperation is a skill which, when well developed, enriches all of life. Children begin to understand the meaning of being an acceptable member of a group by building on experience in living and learning each day. By recognizing both individual and group needs and providing for both, the kindergarten program works toward the development of integrated personalities that can accept and assume responsibilities in a changing, complex, democratic society.

The Child

The five-year-old child is much like other five-year-old children; yet each child is unique and an individual in himself. Individual differences in personality, experiences, backgrounds, gifts, perhaps limitations, are becoming more evident. Each child must be guided in the development of his individual potential.

Socially, the five-year-old is interested in playmates and in learning to get along with others and to conform to school living. Emotionally, the five-year-old is learning self-control. This is a slow process, slower for some than for others. At the same time, he is usually happy and is developing a sense of humor.

His moods change rapidly. He fears new experiences unless he is confident of his ability to cope with them. He wants and desires adult help and guidance and is especially anxious for adult acceptance.

Intellectually, interest is strong in why, in how, and in right now, today. Kindergarten-age children are increasingly interested in ideas and in words. They are rapidly extending their vocabularies. The child of this age tends to talk almost constantly. His ability to listen to directions and detail is fostered. His thinking is factual and concrete.

Physically the five-year-old is strenuously energetic. He climbs and jumps and runs and hops and skips, living life to its fullest. His action has direction which it did not have earlier. He is gaining some control of his body, although this tends to be accomplished more slowly in boys than in girls. He is developing handedness and is apt to be far-sighted. Kindergarten-age youngsters are highly susceptible to respiratory and infectious diseases and tire easily. Young children often do not realize that they are tired. It is important to provide the young children with alternate quiet and active periods in order to cope with the strenuous activity.

The Program

The kindergarten day is a combination of a structured time and a free time. The program varies but it generally includes a time in which a child may choose his own activity as well as a time in which the teacher calls the group together and the children are working in group activity. Language development, number, social studies, or science interests are fostered. Teacher guidance should be provided to help the child to select activities which foster development in all areas of the child's life. When the activity is of an individual nature, it must not be either harmful or disturbing to other children. There is usually time each day for a period of unhurried conversations and for the sharpening of appreciation with wit and humor. Many five-year-olds are just beginning to understand what is "funny" and need some guidance in this area. There should also be time for a quick evaluation in which approval is given, suggestions are made, and goals are set forth in terms of a child's own ability to act.

Children can develop good attitudes toward being responsible for planning their own work and can with the teacher's guidance contribute much to the planning of each day's work.

Singing games and rhythmic activities are a source of friendly cooperation, as well as muscular development, and appreciation. These activities are included daily in the kindergarten programs. Organized play is also part of meeting the need for guided active periods. Since most kindergarten children are at a "me first" stage and are only developing competition at a very low level, games should be of the low organizational type—often of the circle nature in which rules, as such, are simple and to the point.

Stories, poems, and dramatizations provide a rich source for developing conversation, listening skills, and creativeness on the part of five-year-olds. Teachers who listen carefully to the conversations and dramatizations will learn much about the concepts boys and girls are building. Using this information, concepts may be enlarged or corrected if necessary.

A rest period in which boys and girls are helped to develop the principles of relaxation and consideration of others is important even in the half-day kindergarten program. Snack time provides an opportunity for nourishment and a chance to practice social graces and planning at the five-year-old level. Careful choice should be made in the foods provided to be sure they are not unduly sweet and really add to a child's nourishment.

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① *Ibid.*, p. 4.

The Classroom

Tension is reduced with space. A kindergarten for 30 children requires a minimum of 1200 square feet of floor space. It is advisable to have individual lockers or places to hang outdoor apparel close to the entry.

Areas such as the following are essential to a kindergarten: a library center, a carpenter's bench or other sturdy table for use in construction activities, a block building center, an area in which to take part in musical activities, a place for painting, and a play house corner. Toilets with access from the classroom should be provided. The center of the room should be free of materials and equipment in order to provide space for group activities such as stories or rhythms. Outdoor play space allotted to kindergarten children is desirable where the weather permits the use of such facilities during most of the year. It is in such a place that structured games designed to teach children to follow directions, or sometimes to teach space relations, are taught. It is also a place in which to teach children the fun of directed physical activities.

The Teacher

The kindergarten teacher becomes a guide and a leader. She provides suitable materials and helps to create an atmosphere conducive to the use of initiative, problem solving, experimentation, and creativeness on the part of each child.

Evaluation

If a child's year in the kindergarten has been a good one, we can expect that he has been learning along such lines as these:

- Developing the skills of getting along with other people.
- Widening his intellectual and social horizons.
- Developing physically according to his own growth pattern.
- Acquiring wholesome attitudes about himself, other children, and the school.
- Learning to follow directions.
- Increasing his facility in communicating ideas and feelings through words and many other media.
- Growing in independence and initiative.
- Becoming sensitive to the wants and needs of others.
- Learning to use his body more skillfully and to behave in ways to safeguard his health.
- Developing skills of critical thinking.
- Assuming some responsibility for his own actions.

Instructional Materials, Facilities, and Services

Instructional Materials Center

The school exists to provide an educational environment in which each child can develop to his full potential. The instructional process is the heart of education, and instructional materials can give shape and substance to the curriculum, control its content, and vitally affect the teaching-learning process.

The complexities of today's world are reflected in the tremendous depth and breadth of resource materials which must now be utilized in the education of children; the selection, organization, distribution, application, and storage of these materials has become a major problem. If there is to be efficient instruction, teachers must be able to use appropriate materials at the proper time in order that children may receive the benefits of our culture's expanding technology and abundance of learning opportunities.

Guiding Principles

Certain guiding principles① can determine the directions of plans and organization to meet this critical need for immediate choice from a broad variety of media and techniques:

- The wide variety of available instructional materials makes it mandatory that teachers be selective. Learning goals should determine a teacher's choice and functional use of instructional materials.
- Many materials and media, when used in combination, greatly increase the probability of achieving desired learning goals.
- The instructional process can be greatly strengthened, enriched, and improved by using more effectively and extensively materials which are, or can be, made available.
- The increasing number of instructional materials and techniques, for both group and individual learning experiences, offers many new possibilities for creativity and practical experimentation in teaching.
- Teachers need to achieve greater proficiency in their abilities to evaluate, select, and use various instructional materials. Teacher performance depends upon the quality of both pre-service and in-service education.

Basic Functions

Through application and experience, these principles have led to the recognition of four basic functions which must be served if the principles are to be observed in practice. These functions are:②

- A pool of basic and specialized instructional materials must be readily available for teacher and learner use.
- Teacher in-service experiences must be supplied, leading to improved utilization and broad application of instructional materials.
- Supporting services for maintenance, distribution, and application of requisite materials and equipment must be available.
- Local production of unique materials demanded for effective and efficient instruction is necessary.

Planned Program

Over the past quarter of a century, in school systems throughout the nation, various organizational plans have been exercised, adapted, and developed to provide these functions. It has been found that these basic functions can be effectively carried out by providing, at the building level, a planned program for instructional media for all pupils in all grades, in keeping with their discoverable needs.

Such a program usually includes:

Personnel with time free from other services and duties to plan activities and to provide services.

Materials acceptable in quantity and quality, and adequately available, to support the instructional program.

Physical facilities and equipment to implement the levels of utilization outlined in the planned program.

An annual budget sufficient to operate the program as developed and planned by teachers and administrators.

Organization to provide for effective use of instructional media by pupils and teachers at each period of the school day.

The scope of such a program, usually developed around a central building unit, often the library, and termed an Instructional Materials Center, depends upon the demonstrated needs of the school, its teachers, and learners; the relationship of the school to other schools within the school district; and the

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① Adapted from Verne Stockman and others, *Instructional Materials*, Administration and Supervision Bulletin A-3, Illinois Department of Education, Springfield, 1961, p. v.

② Adapted from Henry C. Ruark, Jr., "It's IMC for 1963," *Educational Screen and AV Guide*, December 1963, p. 675.

parallel relationship of the school district to other districts within its region.

Concept of Levels

The Instructional Materials Center concept is most effective when applied at each of the operating levels involved in the support and organization of instruction: the classroom, the building, the local district, the intermediate district or region, and the state. To be most effective each level should provide instructional materials services on the same basic pattern of organization, to meet the same four basic functions, but with each higher level dealing with more specialized, more sophisticated, and more expensive materials and providing increasingly specialized professional services.

Just as every classroom should have immediately available certain basic printed materials, such as textbooks, references, and periodicals, so should every classroom also have immediately available certain basic audiovisual materials, such as maps, graphics, charts, exhibit materials, basic filmstrips and slides, tapes, and record collections, as indicated by learner needs in that class. At the building level, where printed materials are ordinarily centralized in a school library, the building collection of immediately available visual and audio materials should be centralized in the same manner for joint use and reference, with some place designated as a facility and someone delegated as responsible.

At the local district level, some place and someone should be designated and delegated to provide the organizational base and direct the activities necessary to district-wide support of the building-centered program. Whenever possible, special support services in selection, utilization, and production should be provided to effectively aid teachers in finding, obtaining, and using the wealth of modern materials available for instruction. At this level, too, depending upon district size, the more expensive types of basic materials may be centralized for distribution and maintenance. These might include films and overhead transparencies, specialized sets of filmstrips and slides, record albums useful in several areas or grade levels, and graphics and exhibit materials essential to more than one teaching station but too expensive or specialized to be supplied to every class or every building.

Simple facilities for local production of unique materials, of various types and kinds, should be available within the school buildings; more specialized facilities and production equipment, with supporting personnel, should be centralized and made easily available at the district level.

These outlined phases of a building-level program supported at the district level are reflected in Recommendation 28 of *Schools For the Sixties,* the report of NEA's Project On Instruction:

> In each school system, there should be one or more well-planned instructional materials and resources centers, consisting of at least a library and an audio-visual center. In each school building, there should also be an instructional resources facility. These centers should be staffed by persons who are adequately prepared in curriculum and instruction, in library service, and in audio-visual education.①

Summary

It is clear that modern instruction demands modern teaching-learning tools; it is just as clear, after many years of experience and development, that the Instructional Materials Center concept offers a flexible, adaptable, workable organizational pattern to supply both needed materials and supporting services.

Whether or not audio-visual and library services are immediately combined to provide teachers and learners with true availability of both printed and non-printed materials is a decision to be made on the basis of local needs and structure. Likewise, the form and content of the collections of materials and the provision for supporting services should develop from local learner and teacher needs. In any case, planned joint development of such services for both print and non-print materials is an inflexible and continuing necessity for a modern instructional program.

School Library

The elementary school library is recognized by researchers, teachers, principals, students, and parents as a chief contributor to quality instruction. Desirable library services provide opportunities for the development of independence in learning in the following ways:

Encourage children to read widely and explore on their own

Provide depth and breadth of information

Encourage the development of skills and satisfaction in finding answers to questions

Permit comparing and evaluating ideas from many sources

Supply resource materials of many kinds

Make books available for use in the home

Provide a center for research and recreational reading

Support creative teaching and dynamic learning programs throughout the school

Provide an opportunity for establishment of lifelong reading habits

> An elementary school needs a library available to pupils individually, in groups, and in classes. It needs also a carefully chosen and catalogued supply of audio-visual and other instructional materials for classroom use. The library should be a place of discovery for the pupil where he learns to exercise his own judgment in the selection and use of a wide variety of reading materials, develops the habit of independent study, and broadens his own cultural horizons. It is an essential in a modern elementary school.②

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① National Education Association, *Schools for the Sixties:* A Report of the Project on Instruction, the Association, Washington, D. C., 1964, p. 98.

② Educational Policies Commission, *Contemporary Issues in Elementary Education,* the Commission, Washington, D. C., 1960, p. 20.

Library Quarters

The reading room, located for easy accessibility, should be one of the most attractive areas in the school building. It needs to be large enough to permit teachers and librarians to work effectively with an entire class and at the same time permit small groups and individuals from other classes to be present. Flexibility which permits expansion both within and without the library area should be planned for future curriculum changes and increased enrollment. The reading room should be arranged to include listening and viewing areas as well as group discussion spaces and independent study spaces. Adjustable wall shelving for the book collection and special shelving of various dimensions for reference books, picture books, and current magazines are necessary.

The location of the circulation desk, card catalog, vertical files, and other free-standing equipment must permit sufficient space for heavy traffic. Areas need to be allotted for adequate work space and storage for equipment and periodicals as well as space for bulletin board materials, pictures, maps, records, models, filmstrips, slides, tapes, and realia. Proper control of light, sound, and ventilation; appropriate tables and chairs; inviting bulletin boards and exhibit cases; artistic decoration and areas which lead to easy supervision, all will contribute to a pleasant, functional, and inviting learning environment.

The library should be available for use by individual students and by class groups throughout the school day and before and after school; it should never be considered as a multipurpose room. The school library should remain open during the summer to serve boys and girls if other library facilities are unavailable.

Library Staff

The librarian in the elementary school is a teacher who possesses knowledge of child development, understands the processes of teaching and learning, is familiar with the instructional methods employed by teachers in the reading program, and knows the complete curriculum of the school. He needs to have training in the selection, evaluation, utilization, classification, and cataloging of materials; and the organizing and supervising of an elementary school library program. He will be able to work effectively with the teachers and students if he understands their needs, and if he has enthusiasm for materials, a cooperative spirit, and a desire to give service.

Materials

Vital to an ongoing school library program is the utilization of a basic collection of materials which meets individual differences, provides enrichment in all curriculum areas, stimulates the development of reading skills and lifelong reading habits, and teaches appreciation of good literature and art. This balanced collection must be large enough and varied enough to challenge the gifted, to answer the needs of the average, and to encourage the slow. Printed and nonprinted materials need to be classified, catalogued, processed, and circulated according to standard procedures and to be accessible to teachers and students. Utilization should be encouraged through flexible scheduling of classes and small groups.

Basic selection tools for the use of teachers and librarians include *The Basic Book Collection for Elementary Grades, Children's Catalog,* and *Booklist and Subscription Books Bulletin.* Other lists such as those carefully prepared by the American Association For The Advancement of Science, National Council for the Social Studies, National Council of Teachers of English, and the National Education Association also provide necessary variety and depth in selected subject areas.

The annual budget allotment should be based on curriculum needs, adequacy of the materials collection, size of enrollment, and need for constant updating of the collection.

Library Program

READING GUIDANCE

Many group activities such as story hours; discussions of books, authors, and illustrators; and book talks provide a source for the stimulation of reading and the appreciation of good books. Individual reading guidance results from cooperative efforts and shared responsibilities between the classroom teacher and the librarian. All readers, regardless of ability, benefit from the attention given to their individual abilities and interests. It is the responsibility of the library to provide the materials which represent the best in literature and, through a variety of methods, to develop interest in reading both for pleasure and enrichment.

CURRICULUM ENRICHMENT

The library is rightfully called the learning laboratory or resource center for many classroom activities. In this extension of the classroom, up-to-date information must be provided for the teacher who is planning a unit of work or for the student who is seeking an answer. Both printed and nonprinted materials including such a variety as pamphlets, indexes, periodicals, newspapers, filmstrips, records, transparencies, and other teaching materials as they are developed, need to be utilized to meet individual needs and to enrich the learning experiences of students. Continuous weeding of collections in relation to changing curriculum content and new instructional methods is essential. The librarian should serve as a resource consultant on curriculum and on other school committees which involve library materials.

REFERENCE AND RESEARCH SKILLS

Primary responsibilities of the librarian include the teaching of the use of the library and assisting in the planning of a cooperative program developing directly from classroom assignments. The development of reference and research skills begins in the kindergarten or first grade and expands in breadth and depth with each grade. By the end of the sixth grade, all students should be familiar with the card catalog, the classification system, the parts of a book, basic reference works, and correct bibliographic form. With the emphasis on independent study, intellectual growth, and adult continuing education, the library skills program is important to the student, for as the possessor of the tools for learning he has the key to a continuous, independent, life-long education.

STUDENT ASSISTANTS

Valuable learning experiences are possible for boys and girls who help in the school library. As they learn to do such clerical tasks as slipping, shelving, and pasting, they will also develop a sense of leadership and responsibility and an increasing knowledge of materials. For the librarian, student assistants may lighten some of the tasks which are time consuming and routine. However, as a word of caution, students' time must not be exploited for they cannot take the place of adult clerical assistance. The student assistant must be placed in a learning situation, and the program should be planned to present experiences which lead to knowledge and appreciation of libraries and their resources.

Roles of Teacher, Librarian, and Principal

The development and utilization of library resources depends upon many people. The most vital roles however, are those played by the teacher, principal, and librarian. If the children are to receive the benefit of the great storehouse of knowledge and inspiration which is available in the modern school library, it is important that the roles suggested in the following lists be those adopted by school personnel.

THE TEACHER

Assumes responsibility for familiarizing himself with the materials in the library.

Participates in the selection of materials for the library and in the evaluation of the library collection.

Alerts the librarian to new materials, trends, and changes in the areas and grade levels in which he works.

Visits school and public libraries to see available materials and to talk with librarians concerning needs.

Encourages the librarian to make bibliographies of available materials.

Brings his class groups to the library or sends small groups and individuals from the classroom to the library to read, to listen, and to view.

Motivates his students to make extensive use of library resources for classroom work and for purposes not connected with class assignments.

Notifies the librarian of assignments, new activities, and units of work.

Makes no assignment which requires the mutilation of materials.

Trains students to take notes, summarize, and outline.

Recognizes student's needs for acquiring skills in using library resources and provides opportunities for development of these skills.

Works with the librarian in guiding students toward the recognition of proper library etiquette.

Borrows library materials for class use for varied lengths of time.

Invites the librarian to the classroom occasionally to witness the culmination of a library-related activity, to introduce new books, or to reinforce an assignment.

Promotes the library habit so his students will become "life-long users."

THE LIBRARIAN

Makes classroom collections available from the central library.

Supplies a variety of professional materials.

Acquires appropriate materials recommended by teachers.

Informs teachers of new materials.

Prepares bibliographies and reading lists.

Locates information for students and teachers.

Cooperates in planning of class and library assignments.

Informs teachers of materials which fit their current units of class instruction.

Works with classroom teachers in determining the interests of pupils, their abilities, needs, and problems.

Cooperates with principal and teachers in developing curriculum and units of study and in selecting appropriate materials for these units.

Encourages teachers to send individuals, groups, or the class to the library during a class period.

Maintains necessary records for reports and evaluation of library program.

Stimulates and guides students in their reading and use of materials.

Plans with the teacher a program of library skills.

THE PRINCIPAL

Works with the library staff and the teachers in designing a program which supports the philosophy of the school.

Enlists the support and understanding of the superintendent, school board, and community in order that adequate financial support, quarters, and trained personnel may be assured.

Assumes responsibility for establishing guidelines that assure a functioning library program.

Recognizes the need for effective cooperation with all other libraries in order that a coordinated program may be developed.

Interprets the library program to the faculty and the community.

Encourages teachers and students in the effective utilization of all materials.

Provides opportunities for the systematic teaching of library and research skills from grades one through eight.

Arranges for a schedule that ensures complete accessibility to library services.

Encourages the selection and utilization of professional materials by teachers.

Evaluates library activities in terms of the educational goals of the school.

Summary

The true concept of a school library program means instruction, service, and activity throughout the school rather than merely within the four walls of the library quarters. All phases of the school program are enriched by means of library materials and services. The degree to which teachers and pupils can and do depend on the services, materials, and staff of the library measures the extent to which the library program is successful.①

Guide for Evaluating The Library Program

Answer *yes* or *no*

——— 1. Does the school provide a central library?

——— 2. Is the library an attractively decorated and comfortably furnished room?

——— 3. Are the library quarters adequate in size to accommodate students working independently, in small groups, and by classes?

——— 4. Are the services of a trained librarian available in the school?

——— 5. Are the printed and nonprinted materials classified and catalogued according to an accepted classification system?

——— 6. Is a card catalog with author, title, and subject cards available for student use?

——— 7. Is an adequate budget supplied?

——— 8. Is the library used exclusively throughout the school day for library purposes?

——— 9. Is there a representative, up-to-date collection of printed and nonprinted materials available for use by students and teachers?

———10. Is the library an active laboratory for research and study where children read according to individual needs and abilities and grow in critical thinking and appreciation?

———11. Is an effort made by teachers and librarian to encourage the use of materials as a means of individualizing instruction?

———12. Is there a continuous program of instruction in library provided from grades 1-8?

———13. Do teachers share the responsibility for the teaching of library skills?

———14. Do teachers and librarian work together to guide the independent reading of boys and girls?

———15. Do the teachers have materials and services easily accessible to support creative teaching and a dynamic learning program?

———16. May individual students come to the library whenever the need arises?

———17. Are children given frequent opportunities to withdraw materials from the central library?

———18. Does the librarian exercise leadership in the development of policies for the selection and use of materials?

———19. Are inventories of all materials taken periodically?

———20. Does the library program enrich all parts of the school educational program?

———21. Are there collections of materials which are distributed to classrooms to help teachers and pupils?

Instructional Television and Radio

Instructional broadcasting by open-circuit television and radio are not new developments in Oregon. The state operates the second oldest educational radio station, KOAC, and one of the earliest state education television networks, Channels 7 and 10. Two district-owned radio stations, KBPS in Portland and KRVM in Eugene, provide radio broadcasts for their schools. The use of closed-circuit television is beginning in larger school districts. Commercial television and radio also contribute many worthwhile programs of educational significance.

The Department of Education is legally responsible for all in-school and in-service radio and television programs broadcast on state-owned networks. In keeping with its educational responsibility, the Department approves radio and televised instructional broadcasts. The State Board of Higher Education is a licensee of the stations forming the radio and television networks, and the Division of Continuing Education of the State System of Higher Education operates the facilities. The Department of Education's responsibilities include the initiation, coordination, development, and production of instructional programs.

Instructional television broadcasting for classroom use is to be expected in science, mathematics, foreign language, social studies, health, art, and music. Teachers can anticipate in-service offerings in foreign languages, language arts, science, mathematics, and other curriculum areas.

Some television series are designed for direct instruction of pupils with the teleteacher carrying the major instructional responsibility. Others are for enrichment of the curriculum with the classroom teacher having the major role in instructional activities.

To assist teachers in the use of instructional radio and television, handbooks are published and distributed free of charge by the Curriculum and Instructional Media Section of the Department. When a television series has been produced out of state, it may be necessary for the school to purchase the handbooks. The handbooks carry a broadcast schedule, a summary of each broadcast, before and after

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① American Library Association, ***Standards For School Library Programs***, the Association, 1960, pp. 14-15.

broadcast activities, and other suggestions to help the teacher utilize the broadcasts to their fullest potential. These handbooks are prerequisites to successful teacher planning for the use of either radio or television programs.

Other instructional materials such as recordings for foreign language broadcasts are available for teacher and pupil use. It is desirable that the school purchase such materials for each teacher utilizing such a television series. Teachers should consult their superintendent or principal to secure available information on broadcast schedules.

Guidelines for Utilization

Utilization of radio and television in the classrooms of a district or by the teachers of that district for upgrading their instructional skills should not occur in isolation from the established curriculum of the district but should be part of a district-wide curriculum plan and have the unqualified support of the administration.

> There can no longer be any doubt that students learn efficiently from instructional television. The fact has been demonstrated now in hundreds of schools by thousands of students, in every part of the United States and in several other countries.①

It is also generally conceded that "Students take from a broadcast what they, with the guidance of good teachers, bring to it and make of it."② The classroom teacher's role in the learning process is not decreased but enhanced by instructional television, since the amount of learning which takes place is determined in part by the degree to which the classroom teacher and teleteacher work together as a team in making the telecast an integral part of the classroom instructional activities. The classroom teacher, as a team member, makes her greatest contribution toward effective utilization by carefully planned before-broadcast, during-broadcast, and after-broadcast activities which integrate the knowledge presented on the telecast and relate it to the ongoing curriculum of the classroom and the particular needs of the pupils. The environment for learning is also largely determined by the efforts of the classroom teacher to establish physical facilities conducive to maximum learning from instructional television.

Focus on ITV

In 1960, the Department issued a booklet, *Focus on ETV as a Teaching Tool*, which offered guidance to teachers using televised instruction in their classrooms. Since the suggestions are as pertinent today as when they were written, and since it is possible to adapt the suggestions to radio utilization also, the entire booklet, which is now out of print, is reprinted here for teacher guidance.

> . . . Techniques for using a television program in school are the techniques of **good teaching**. Telecasts can supplement classroom learning experiences by **previewing** units yet to be studied, by **focusing on** studies currently under consideration, by **reviewing** areas already explored.

Television in the classroom is a **shared** responsibility between the classroom teacher and the teleteacher. The classroom teacher occupies a major position—that of thoughtfully planning and creating within the classroom an atmosphere of receptivity toward the telecast. It is just as important to motivate the viewing of a television program as it is to provide motivation for any other classroom learning experience. It is just as important to follow-up **after** the program as after any other classroom learning experience.

Watching a television program in school is **not** a passive experience. Through a variety of procedures a merely "seeing and hearing" situation can be changed into one of "active participation." The key to the **best utilization** of a television program is **preparation—preparation** by the teacher for **preparation** of the students. Through planning, teachers can integrate television programs into their regular class units of work. Of importance is helping learners develop viewing skills which include thinking about the ideas presented, forming opinion, giving concentrated attention to the program, taking notes if it's necessary, perhaps even noting **briefly** follow-up ideas. Classroom television programs help students to develop techniques of listening, observing, concentrating, and organizing, as well as the skills of independent study. These during-viewing activities are related to the age of the student.

Television viewing in school provides many opportunities for student participation in planning and carrying through group activities. Teachers need to learn to capitalize on these opportunities: to learn to challenge the varying abilities in a group of students. Follow-up activities after the telecast can open broad horizons for future learnings for all levels of ability.

From the following **How To View It** "helps", **select** and **adapt** those which will best fit the needs of the learners as you experiment with this new tool of communication. Decide which activities can be those of students as you **FOCUS ON ETV!**

HOW TO VIEW IT!

THE TELEVISION SET

Television programs used for classroom viewing can be most effective only if the students see a well-defined picture on the television set. Many things contribute to the quality of the picture, but those which are under the control of the receiving school and of the classroom teacher fall into these general groupings:

- A good television receiver in good working order
- An adequate receiving antenna
- Correct placement of the set in the classroom
- Proper tuning of the set

Schools generally find a 23-inch table model set satisfactory for a classroom. The most satisfactory sets are those with a "front speaker." Sets should be placed where glare from windows or lights does not create a reflection on the screen. To help prevent glare, tilt the set slightly forward by raising the back end of the set one or two inches off the stand.

Never view television in a totally darkened room nor one in which viewers must look at the set against a background of unshaded windows. Some schools find it satisfactory to turn off the lights only in the end of the room where the television set is placed.

Placement of the set should be high enough to permit children in back to see over the heads of those in front.

An approximate height of 42 inches is recommended for the viewing stand on which the set rests. If the set is to be moved, the wheels of the stand should be approximately 3 inches in diameter.

Children should sit from about 4 feet to 19 feet from the set.

Turn the set on five minutes **before** the telecast. Position the antenna for the best image, if adjacent to the set. Use the tuning controls carefully to get a picture with optimum brightness, detail, and contrast. Adjust sound volume to desired level.

VIEW IN YOUR OWN CLASSROOM, IF AT ALL POSSIBLE!

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① Wilbur Schramm, "What We Know About Learning from Instructional Television," *Educational Television, The Next Ten Years*, the Institute for Communication Research, Stanford University, Stanford, California, 1962, p. 52.

② State Department of Education, *Focus on ETV as a Teaching Tool*, the Department, 1960, p. 2 (The booklet was written for the Department by Dr. Patricia Swenson, Supervisor of KBPS, Portland Public Schools.).

BEFORE THE BROADCAST

Read the program utilization sheet to be aware of specific broadcast content.

Plan with a student television committee to be responsible for—

- Securing reference materials, books, maps, pictures, exhibits, or articles related to the telecast
- Writing the time and title of the program on the board, or arranging for a chart for this
- Listing new vocabulary words for study
- Putting a student-created "Listening to Broadcast" sign on the door to prevent interruptions
- Arranging the room for comfortable viewing, if necessary
- Checking temperature and ventilation
- Tuning in the television set softly, **ahead of time**

Examine and **explain** the display of resource materials.

Discuss the broadcast title, anticipated content, and new words.

List on the board, or discuss points that might be learned from the program. Summarize what students **know** about the topic and what they **want to know.**

See that all students are ready to view the program and are oriented to the theme or topic.

Establish good standards for viewing so that each class member feels a responsibility for "actively participating" as he views the program **with a purpose.**

Review the **skills** of listening and viewing.

Discuss courtesy and consideration for others in listening and viewing.

DURING THE BROADCAST

Make sure reception is good in all parts of the room.

Take notes quietly on any points made in the broadcast which you may wish the class to discuss later. Note new ideas and any unfamiliar words or questions you wish to discuss afterward with the class.

Listen and view intently and with an interested manner. The teacher sets "the example" and the "viewing tone."

Participate with the class in any activities called for.

Permit students to take notes, or to jot down ideas, if they wish. This is a skill which must be carefully developed, and which will vary with the age level of the group. (In some groups, **only** the teacher will take notes or ideas, words, and questions, to which he wishes to refer after the telecast.)

AFTER THE BROADCAST

Talk over the list of points you wrote on the board, or discussed before the program, which you anticipated you might see and hear—and did, or did not see or hear. Add new ideas and facts learned.

Review new words learned from the telecast.

Discuss ideas, feelings, and impressions about the broadcast left in the minds of the students. Evaluate the facts and ideas presented.

Point out how the broadcast ties in with other classroom learning experiences.

Plan ways to follow up the broadcast: learning more about ideas presented; reading; finding books; looking up pictures and information; doing creative activities—writing, illustrating or making things; dramatizing; giving an oral report; seeing a film; taking a trip.

Provide for individual differences among the group in these follow-up activities. Teachers can find many opportunities in post-broadcast work to challenge the gifted students for further exploration of the subject presented.

Encourage students to evaluate carefully the presentation of the program and to send suggestions to the program producers.

Discuss similar, or other telecasts viewed out of school. Try to evaluate programs, set standards, build critical viewing tastes. Plan to write letters to television producers giving viewer reactions.

FOR SUCCESSFUL UTILIZATION

Remember to **select** and **adapt** the foregoing suggestions for good television utilization to the needs of your situation and your group. Be creative in exploring and experimenting as you FOCUS ON ETV, and remember that the success of a television program is determined to a great degree by what happens in the classroom.①

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① *Ibid.*, pp. 3-7.

Guidance Services

During the past decade much has been written on the nature of child development and the needs of children in a rapidly expanding and dynamic society. Some authors are inclined to call the present era the "century of the child." Currently, considerable interest is being expressed in the development of techniques in guiding children in harmony with socially acceptable objectives. Administrators, teachers, parents, and interest groups throughout the state seem eager to obtain a better understanding of the facts of child development.

Research indicates that the child's first years are the most crucial for mental health and ultimate social adjustments. The need for more insight into the nature of child development has brought to educators an increased responsibility in guiding pupil development in the school.

Needs for Guidance Services

In addition to a need for more insight into the nature of child development, there is a need to implement or improve guidance services programs to meet the needs of the students.

Since guidance services are continuum oriented rather than crisis oriented, coordinated and consistent guidance services at the elementary school level are needed to—

- Extend the scope of special services within the school to
  - include a program of guidance
  - assist children in the development of sound problem solving techniques
  - help them in making wise choices and appropriate behavioral reactions.
- Assist children in developing a knowledgeable approach in selecting tentative educational and occupational goals.
- Provide a continuing liaison and coordination of effort between special education teachers, social workers, school nurses, parents, and other referral sources in the community.
- Provide to parents, teachers, and administrators special assistance in matters related to counseling and information about pupils and testing.

Elementary School Guidance Services

An organized guidance program in the elementary school is one of the services which help children adjust satisfactorily in meeting their social, emotional, physical, educational, and vocational needs. These services are supportive to the instructional program and are designed to serve all pupils the amount and kinds of services rendered being dependent upon the needs of the individual.

Elementary school guidance services are adjunctive to the other special services provided through the school and generally include items shown below.

ACCUMULATING INFORMATION SYSTEMATICALLY

Information, pertaining to the pupil, systematically assembled and recorded in the cumulative folder, is essential to sound program development. Some methods of assembling information that are commonly used in the school include:

- case conferences
- home visits
- case studies
- parent conferences
- individual testing
- group testing
- observation
- anecdotal records

PROVIDING AND INTERPRETING INFORMATION

Information, pertaining to the pupil, can be useless unless adequately interpreted and made available to

The Pupil concerning

- His strengths and weaknesses.
- His personal value system.
- His relationships with others.
- Acceptable behavior.
- Educational opportunities in terms of his abilities.
- Occupational information to the extent that he may develop wholesome attitudes toward the world of work.

The Teacher concerning

- The strengths and weaknesses of each pupil entering the class.
- Pertinent background information on each child.
- The child's personal value system.
- Basic child development characteristics and needs.
- Available referral resources.
- Possible techniques of aiding children with special problems.
- Standardized test use and interpretation.
- Evaluative procedures as they pertain to the classroom and pupils.

The Parent concerning

- The strengths and weaknesses of his child.
- Available referral resources.
- Possible techniques of aiding children with special problems.
- Basic child development characteristics and needs.

COUNSELING

The purposes of counseling are to help individuals meet problems realistically with as much information as possible about these problems.

All persons have limitations; no person can excel in everything or master every situation. Failure can often be reduced by setting goals that are within limits of the functional capacity of the individual or by assisting the individual in developing a problem-solving approach in selecting alternatives.

Counseling services in the elementary school include interpreting facts, evaluating evidence, discussing problems, and providing information so that the best decisions possible may be reached through either face to face or group methods by the individual or individuals concerned. The counseling service will usually involve conferences with or assistance from administrators, persons from referral agencies, parents, and other special services personnel such as special education teachers and school health nurses.

Role of Principal

The elementary school principal sets the pace in determining the nature and extent of guidance services to be provided. Because he is responsible for the educational program within his building, the administrator provides leadership that stimulates the formulation of common goals and brings the needs and purposes of the school program into focus.

In his capacity as educational leader the elementary principle—

Provides leadership in the cooperative development of goals for the school.

Provides leadership in planning, organizing, coordinating, and evaluating the services and programs provided within the school.

Helps teachers to implement guidance activities.

Role of Classroom Teacher

The classroom teacher has a basic responsibility for the guidance of elementary school children. The teacher who is successful in assisting children establishes practices and procedures that provide an opportunity for him to

Recognize each pupil as being unique and in need of emphatic understanding.

Acquire basic skills in analyzing behavior and recognizing significant behavioral changes.

Participate as a team member in promoting and assisting special services programs.

Assist students in gaining greater self-understanding.

Refer to other professional levels those whose needs are beyond his competencies.

Role of Counselor

The elementary school counselor, as a professional person, serves in an intermediate capacity in assisting the child, the teacher, and the parent. At the same time he solicits assistance, through referral, from special services offered within the school and community.

Representative professional services by elementary school counselors include

Providing and interpreting information to pupils and teachers on articulation and on orientation programs that are related to child growth and development.

Providing either individual or group counseling for the pupil to help him achieve self-understanding.

Providing liaison with the several referral sources available to the pupil.

Developing techniques for the systematic accumulation of information pertaining to the pupil.

Implementing a Program

School administrators, teachers, and others interested in implementing a guidance services program in the elementary school should consider the following procedures.

Obtain administrative leadership and support. It is essential that school board members, superintendents, supervisors, and other persons with administrative authority be appraised of the needs, value, and extent of these services.

Involve administrators, teachers, special services personnel, school health personnel, and others in the initial planning and development of the program. This can most often be accomplished by establishing a committee comprised of these persons to study and develop the basis for the program.

Define the philosophy and objectives of the school, the needs of the pupils, and the responsibilities of the staff to the program.

Establish the program. Define the duties of the counselor, employ qualified personnel, support the program, and utilize the services to their fullest extent.

Evaluate the program continually in view of the philosophy of the school, the needs of the pupils, and the responsibilities of the personnel.

Additional Information

Among the additional sources of information, including guides and current publications available from the Department of Education, Guidance Services, Room 313 Public Service Building, Salem, Oregon, are:

State Department of Education. *Guidance Services for Oregon Schools,* Salem, Oregon, 1961

State Department of Education, State Advisory Committee on Guidance. *Guidelines for Guidance Service Programs in Oregon Elementary Schools,* Salem, Oregon, July 1, 1963

School Lunch

The school lunch program plays a four-fold role in the educational program of the school. As a source of nutritionally adequate noon meals, it contributes to the physical well-being of the students which is important to the success of the teaching program; it is a center for the teaching of proper food selection, of good health habits, and social training; it presents an opportunity to relate classroom teaching with the students' interests and experiences which center around food; and it furnishes a means of interesting the community in the food service of the school and of giving some training in the nutritional needs of students through this interest.

If the school lunch program is to be developed to its desirable potential, the "feeding" program must also become a "learning" program which contributes to many phases of the curriculum.

Use should be made of the many opportunities the lunch program provides for developing—

good citizenship
good food and health habits
growth in social effectivness
appreciation of economics
practical application of many skills.

To be effective the same principles of education must be applied to the lunch program as to any other part of the school curriculum. Each school should develop, cooperatively, methods of its own for integrating the lunch program with the educational program to the enrichment of both.

Contributions to the Curriculum

The following are types of activities by which the lunch program can contribute to the curriculum in various areas.

LANGUAGE ARTS

Write reports or stories about a project relating to the lunch program.

Learn to spell words related to the lunch program or learned in connection with a project.

Write invitations to parents to have lunch with the students at school.

Practice desirable table conversation.

SOCIAL SCIENCES

Plan a Type A school lunch menu to be served using foods typical of the diet of the people of a foreign country being studied.

Study foods served in the school lunch which are native to the Western hemisphere.

Study the geographic, historic, or economic aspects of foods which are prevalent in the diet in different sections of the country. Students might request schools in other sections of the country to exchange school lunch menus with them to see how menus differ.

Study the historical development of foods which have become common to diet in the United States.

Study where different foods are grown and how they are processed, stored, and transported.

Visit the school lunch storeroom to see what foods are used and discover where they are grown or produced.

Learn about the regulations affecting the operation of the school lunch program such as health and sanitation standards, labor laws, and federal aid.

Learn how various business enterprises in the community serve the school lunch program such as: the dairy, the bank, the wholesale grocer, the utility company, and the garbage collector.

Have the students invite their parents as noon guests so that they may practice being good hosts.

SCIENCE

Study the digestive process; perform experiments such as showing how starch is changed to sugar in the mouth or how milk is digested in the stomach.

Feed and care for guinea pigs or white rats to show the effects of good and poor diets on health and physical fitness.

Study a cereal grain or legume from the germination of the seed to the final cooking and eating of the product.

Study the different ways of preserving foods and the reasons for preservation; visit the school lunch kitchen and storeroom to see and examine foods preserved by the different methods; compare flavor, texture, color, and form of a food preserved by various processes; e.g., apples: dehydrated, canned, frozen.

Study the different types of leavening agents and how they affect batters and doughs. Ask the cook to provide some bread dough to be observed in the classroom.

Study how bacteria and molds grow. Set a covered shallow dish on the serving counter for germ collection.

Visit the kitchen to learn what is done to prevent food spoilage and spread of disease such as heating and refrigerating of foods, food handling techniques, and sanitizing dishes by chemical immersion or hot water.

Visit the kitchen to see how machines in the kitchen apply the principles of force.

MATHEMATICS

Use the kitchen measuring spoons, and cup, quart, and gallon graduated measures to demonstrate the relationships among measures of volume; note that scoops, dishes, ladles, and other utensils have standardized sizes.

Use scales from the kitchen to study units of weight. This is especially of value if the kitchen has a balance scale as well as a spring scale.

Increase or decrease a school lunch recipe in size to provide the portions needed for the number usually served in the school.

Calculate the total cost of a recipe or of a meal; compute the cost per serving.

Collect and weigh plate waste to see what percentage of a food or of a meal is returned uneaten.

Practice making change by collecting the lunch or milk money for the class.

PHYSICAL EDUCATION AND HEALTH

Study nutrition in relation to

- Growth and physical well-being of humans (or animals).
- Nutrients essential to optimum growth: what they are, what they do in the body, and in what foods they are chiefly found.
- Caloric needs of the students.
- Digestion and absorption of the nutrients.
- Foods eaten by the students which contribute to their good health.

Compare the Type A school lunch pattern with the basic food groups to see how it is planned to help give the students a balanced diet.

Have the students plan lunch menus following the Type A pattern to be served to the school, working with the cook or school lunch supervisor.

Ask the cook to prepare samples of vegetables, fruits, or other new foods the students have studied so that they may find out how these foods look and taste.

AESTHETICS

Develop an appreciation for good table manners and practice them in the lunchroom.

Develop an appreciation for the need to show consideration for others in the lunchroom.

Prepare bulletin boards or make posters about nutrition, new foods, and manners, related to the school lunch.

Make special occasion place mats for the dining table.

Help the student plan and make decorations for the dining room for holidays or other occasions.

Responsibility for Lunch Program

Responsibility for the operation of the school lunch program rests with the school administrator, the district lunch supervisor, and/or the cook. For it to be truly effective, however, the teachers as well as the administrator and school lunch personnel need to assume professional responsibilities for the program.

The school administrator determines the policies under which the lunch program operates, promotes a good relationship between teachers and cooks, urges them to make full use of the educational opportunities inherent in the school lunch, and serves as a channel through which teachers and cooks work in their cooperative use of the school lunch program.

The teacher will influence students' attitudes toward the school lunch program as evidenced by their participation, behavior, and food acceptance whether he eats with them or not. He should teach them to show consideration for others, practice good table manners, engage in suitable table conversation, and should plan with his students how this is to be accomplished.

The district lunch supervisor and/or the cook in the building, as resource persons, can make worthwhile contributions to the school's instructional program. When planning school lunch related activities their assistance can be invaluable.

With the full cooperation of everyone concerned, the school lunch program can function effectively as an educational tool.

PART IV

General Suggestions

General Suggestions

Balancing the School Day

The problem of balancing the school day varies from grade to grade and from urban to rural situations. However, certain principles are basic to creating good schedules. Since there seems to be a lack of scientific evidence to show that one time of the day is better than another for certain subjects and activities, it would seem that the arrangement of any program should be planned to meet teacher and pupil needs and local situations. Physical education and recess periods should be scheduled to break the longer periods and provide a change of activities.

The following chart illustrates subject matter areas by blocks with suggested time allotments to be devoted to each area. It is recommended that time allotments be considered in planning by the week rather than by the day. When planning the schedule, careful consideration should be given to the subject matter grouping which constitutes a given area or block. Differences in pupil ability and differences in ability of teachers, indicate the need for flexible schedules. For this reason no one program can be presented as representative.

SUGGESTED TIME ALLOTMENTS

Early Years	**Middle Years**	**Later Years**
Arts of Communication 50% of time Listening Speaking Writing Composition Spelling Handwriting Reading	*Arts of Communication* 35% of time Listening Speaking Writing Composition Spelling Handwriting Reading Dramatics Foreign Language	*Arts of Communication* 20% of time Listening Speaking Writing Composition Spelling Handwriting Reading Literature Foreign Language
Social Studies, Science, Music, Arts and Crafts 30% of time	*Social Studies, Science* 20% of time	*Social Studies* 20% of time
		Science 15% of time
	Music, Arts and Crafts 15% of time	*Music, Arts and Crafts* 15% of time
Health and Physical Education, Health Services 10% of time	*Health and Physical Education, Health Services* 15% of time	*Health and Physical Education, Health Services* 15% of time
Arithmetic 10% of time	*Arithmetic* 15% of time	*Arithmetic* 15% of time

Teachers With More Than One Grade

Teachers in classrooms with children in more than one grade may find it desirable to have a program which provides for longer working periods for each child and fewer classes than are usually provided. Grouping children from several grades together for work and combining subject matter areas when these areas have a common theme are good procedures for accomplishing this goal. By limiting the number of classes, the teacher has more time for individual guidance and will also find it easier to relate the skills to purposeful activities. One way of accomplishing this is by blocking the daily program into subject matter areas. The *blocked* program presented here is an *example* of such planning. If offers possibilities for combining classes and grades. The arrangement of areas according to time of day is not important but the opportunity for a flexible program is significant.

The amount of time devoted to any section of the schedule will depend upon the lesson, the age of the children, and the particular area of instruction to be considered. Children in the early years will devote more of their time to language arts than will children in the later years. The chart preceding this section will guide the teacher in making a schedule. Schedules are a plan and are useful as such. Any plan is more successful when it is flexible enough to meet the needs of the day and of the children.

It is generally conceded that teachers can efficiently handle three groups in a room. The suggested grouping of classes makes it possible to have three groups during a block of time. The suggested block schedule is as suitable for use in rooms housing two grades, as it is in multi-age groupings. Teachers can see that these groups are kept very flexible and grade lines crossed in grouping boys and girls when this will take care of individual differences. The individual needs of children are, of course, more important than the grade level represented.

SUGGESTED BLOCK SCHEDULE

BLOCK I

Language Arts
- Reading
- Language
- Creative Writing
- Penmanship
- Spelling

Physical Education

BLOCK II

Social Studies

BLOCK III

Sciences
- Arithmetic
- Health
- Science

Recess

BLOCK IV

Appreciation
- Arts and Crafts
- Music
- Literature

IMPLEMENTATION

There are many opportunities for the entire school to work as one team. This could be most effective in *planning* for a unit of interest. Particular care should be taken to continually evaluate progress, and in the *culmination* of the work to insure that all groups are sharing and participating equally in proportion to the ability of each. Field trips and other activities are common experiences that may be shared by all.

There will be times when children who need guidance on the development of specific skills or who have similar difficulties can work together, irrespective of grade. This technique can be used in development of such skills as outlining, summarizing, skimming; and use of the table of contents, indexes, dictionary, and reference skills. This same type of grouping can be utilized in the development of arithmetic skills and in helping children develop competence in a particular skill. There may be times when children from a particular grade may be working with two groups. For example, some fifth-grade children may need the same type of help that the third- and fourth-grade children are receiving in the development of a specific arithmetic skill. During that time the other children in the fifth grade might be ready for work in measurement which the sixth-grade children are studying. Whenever children from several grades work together, careful attention must be given to the readiness of the individuals for the work. Readiness for a specific skill should always precede practice of the skill.

When a teacher groups children from several grades together, there must be continuous evaluation by both the teacher and the child. Teachers need to be aware of those areas where children need help. Teachers also need to know which children need extra guidance and which children are ready to go on to the learning of a more difficult skill. The boys and girls should also have an awareness of the area in which they need help.

Children from more than one grade can work together for reading when a theme such as outstanding men, outstanding women, heroes, pets, mystery tales, sea stories, and safety is the center of interest. The children would meet as one class under the guidance of the teacher for discussion and other sharing activities. When working alone, the children can develop similar reading skills and concepts based on reading materials geared to each individual's ability.

Much of the written and oral English work—composition writing, creative writing, creative dramatics, forms of correct usage, and oral reports—do not always need a special time schedule per grade in the daily program. The social studies, science, and health lessons should provide much of the content for the English lessons as well as creating purposes for the child's writing. At other times themes on holidays, summer fun, safety, books and movies might well be the basis for the English work. The personnel of these groups can cut across grade levels and will change from time to time. Children should write, speak, and create with the spoken word or in writing *within their level of maturity and ability to achieve* and at no time should all individuals within this kind of a group be expected *to conform to a single standard of achievement.*

If individuals or groups need guidance to correct an error or to develop a new skill in correct usage, punctuation, capitalization, or kinds of sentences, in either the written or spoken form, help can be given by the teacher to individuals or to small groups whose members have the same need.

There will be many opportunities for teachers to combine science and health teaching. Units of study in health on subjects such as bacteria, food preservation, sanitation, and water supply are directly related to science. Likewise, there are science units in the science texts which have a direct bearing on health materials.

Science and social studies frequently have units of work which are overlapping in their concepts. The teacher will want to avail himself of every opportunity to combine the subject matter areas and to relate the learnings.

Health, science, and frequently social studies units will be such that all the children in a multi-grade classroom can work together on a common problem part of the time. At other times small committees composed of children whose abilities are similar can work together to get information about a particular phase of the larger problem. There may be times when primary children, intermediate children, and upper-grade children work together instead of by grades.

The multi-grade classroom offers opportunities for social living similar to family life, for here we find children of various age groups. There will be many opportunities for children to help each other, to learn to discuss common problems in groups, to work out their plans cooperatively, and to develop a feeling of responsibility for others. Many times older children can give a limited amount of guidance and help to the younger members in the room. Children need to learn to assume more responsibility for their behavior and for engaging in worthwhile, independent activities when the teacher is guiding groups or helping individuals. To help children develop these abilities the teacher needs to help children plan their independent activities and to provide materials and space where the children can work either individually or in small groups.

Care should be taken to explain purposes of groupings to parents whenever the daily scheduling varies to any marked degree from the pattern previously accepted by the community. At times there is concern about the status of a child who moves to a different school. Since the emphasis in schools today is on the individual and his needs, this problem need not create serious difficulties.

Handicapped Children

Teachers and administrators may obtain assistance in providing special education services for eligible handicapped children by directing inquiries to the Special Education Section, Department of Education. Consultant service and financial assistance are available to districts to provide home or hospital instruction, special transportation, special services, or special teaching to children who are deaf or hard of hearing, blind or partially sighted, physically handicapped, emotionally disturbed, who have speech defects, or who have extreme learning problems exclusive of mental retardation. Financial assistance is also available for approved special classes for mentally-retarded children. Approved programs for educationally able children also receive some financial assistance from the state level.

A letter of inquiry to the Special Education Section of the Department of Education will bring information about all of these programs to any school in the state.

Legal Requirements

STATE-ADOPTED TEXTS

State-adopted textbooks are required to be used in all public schools except the following:

Districts with 20,000 or more children of school age.

Districts which have received special approval of the State Board of Education.

BIRTH CERTIFICATES

The possession of a birth certificate has become a matter of importance in recent years and will continue to be so in the future. It is the responsibility of the primary teacher to determine whether or not children entering the first grade have birth certificates. When children do not have birth certificates, parents should be encouraged to secure them. The school should not keep the certificate but should impress on both children and parents the importance of the possession of the certificate. The upper-grade teacher should also emphasize the importance of possessing a birth certificate. This may be done in grade eight as part of a project in history and civics.

FLAG AND FLAG SALUTE

According to Oregon law the United States flag and the Oregon state flag are to be displayed upon or near each public school building during school hours and at such other times as the board may deem proper, except in unsuitable weather.

Teachers should carefully instruct the children in the proper manner of saluting the United States flag. The following has been designated by Congress as the pledge to the flag:

> I pledge allegiance to the flag of the United States of America and to the Republic for which it stands, one Nation under God, indivisible, with liberty and justice for all.

This pledge should be rendered by standing with the right hand over the heart. However, civilians will always show full respect to the flag when the pledge is given by merely standing at attention, men removing their headdress. Persons in uniform render the military salute.

Fire Safety

Fire safety is the responsibility of every principal and teacher at all times. Each person in charge of a public or private school or educational institution having an average daily attendance of fifty or more pupils is required by law to instruct and train the pupils in fire safety by means of drills which shall be held at least once each month when the schools are in session. All doors of exits shall be kept unlocked during school hours. Every teacher or instructor in every public, private, or parochial school shall devote not less than thirty minutes in each month during which the school is in session to instruction of pupils in fire dangers and drills.①

For assistance in developing a fire safety program, see *Fire Safety In Oregon Schools,* issued by the Department of Education in 1960.

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① ORS 479.050, 479.140, 479.150, 336.340.